Metric Guidance by Work Element

Fiscal Year: 2010

(as of 10/14/2011)

This report lists work elements by ID, grouped first by those requiring metrics, then by those not requiring metrics.
To view a report that lists each metric and their associated work elements please see: Metrics - Work Elements report.

This is the list of 344 work element metrics for work elements active in Fiscal Year 2010.
Contracts that start in this fiscal year must use work elements from this list.

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
5	Land Purchase and/or Conservation Easement	Land Acquisition / Conservation Easement	This is a BPA Internal-use only work element. BPA uses this work element to describe directly wiring money to escrow associated with real estate transactions. This work element only covers the purchase price or option of the land or easement (it may include escrow, title, and/or closing costs). Any work performed by BPA's Transmission Business Line (TBL) in support of the real estate transactions shall be covered by WE#6, TBL Work (also a BPA Internal-use only work element).	1375	Type of acquisition [Fee Title, New Easement, Renewed Easement, Exchange, Mix]	'Mix' refers to any combination of different types of acquisition. 'Exchange' refers to a land trade or swap. If additional BPA funds are required as part of an exchange, select 'Mix.'	☐	list	
				1376	Start date of easement	In most cases, this will be a Conservation Easement; not a construction easement. This metric does not apply to Fee Title acquisitions.		date	
				1377	End date of easement	In most cases, this will be a Conservation Easement; not a construction easement. This metric does not apply to fee title acquisitions.		date	
				1378	Start date of the purchase	This is the closing date of the transaction.		date	
				1381	# of minimum estimated HUs protected for wildlife	Use this habitat unit (HU) metric when a land acquisition is part of BPA's Wildlife Mitigation Program, which mitigates for the impacts to wildlife caused by the development of the dams of the Federal Columbia River Power System (FCRPS).		number	1.0
				1382	Start latitude of protected stream reach	This metric only applies to acquisitions (by lease or purchase) in riparian areas. Must be entered in decimal degrees. For help converting from degrees, minutes, seconds go to http://www.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html.		lat	0.000001

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1383	End latitude of protected stream reach	This metric only applies to acquisitions (by lease or purchase) in riparian areas. Must be entered in decimal degrees. For help converting from degrees, minutes, seconds go to http://www.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html.		lat	0.000001
				1384	Start longitude of protected stream reach	This metric only applies to acquisitions (by lease or purchase) in riparian areas. Must be entered in decimal degrees. For help converting from degrees, minutes, seconds go to http://www.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html.		long	0.000001
				1385	End longitude of protected stream reach	This metric only applies to acquisitions (by lease or purchase) in riparian areas. Must be entered in decimal degrees. For help converting from degrees, minutes, seconds go to http://www.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html.		long	0.000001
				1452	Amount of water secured in acre-feet/year	This is the total volume of water being addressed by the acquisition over the course of one irrigation season. The term acquisition refers to either the lease or the purchase of water.	☐	number	0.1
				1453	Flow of water returned to the stream as prescribed in the water acquisition in cubic-feet per second (cfs)	Provide the average volume rate of flow expected by the acquisition. The term "acquisition" refers to either the lease or the purchase of water.	☐	number	0.01
				1481	# of stream kilometers credited for resident fish	Use this stream kilometer metric when the land purchase or conservation easement results in credit towards BPA's Resident Fish Mitigation Program in Montana. Note that this metric is in kilometers while other metrics in Pisces tend to use miles.		number	0.01
				1524	# of acres of upland non-wetland habitat protected	Identify the total acres of habitat protected in the upland habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the protected habitat zone times the average width of the protected habitat zone in feet / divided by 43,560 sq. ft./acre. (Note the total area protected for this WE should roughly equal the total acres identified in the purchase.) -Upland: Habitat upslope of the riparian and instream habitat zone with non-hydrophilic plants, unless part of an isolated wetland, which occurs outside the hyporheic, or floodplain/riparian zone. -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1525	# of acres of upland wetland habitat protected	Identify the total acres of habitat protected in the upland habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the protected habitat zone times the average width of the protected habitat zone in feet / divided by 43,560 sq. ft./acre. (Note the total area protected for this WE should roughly equal the total acres identified in the purchase.) -Upland: Habitat upslope of the riparian and instream habitat zone with non-hydrophilic plants, unless part of an isolated wetland, which occurs outside the hyporheic, or floodplain/riparian zone. -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	□	number	0.01
				1526	# of acres of riparian non-wetland habitat protected	Identify the total acres of habitat protected in the riparian habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the protected habitat zone times the average width of the protected habitat zone in feet / divided by 43,560 sq. ft./acre. (Note the total area protected for this WE should roughly equal the total acres identified in the purchase.) -Riparian: Transition zone between aquatic and upland habitat typically within a river's floodplain. These habitats are related to and influenced by surface or subsurface waters, especially the margins of streams, lakes, ponds, wetlands, seeps, and ditches between land and a stream and above the average high watermark, or bank full height. Plant communities along the river and lake margins are called riparian vegetation, characterized by hydrophilic plants. This includes floodplain habitat, which may be restored to properly functioning conditions. (This excludes floodplain habitat influenced by the tides, which is classified as "Estuarine Habitat" for Pisces.) -Non-Wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.	□	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1527	# of acres of riparian wetland habitat protected	Identify the total acres of habitat protected in the riparian habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the protected habitat zone times the average width of the protected habitat zone in feet / divided by 43,560 sq. ft./acre. (Note the total area protected for this WE should roughly equal the total acres identified in the purchase.) -Riparian: Transition zone between aquatic and upland habitat typically within a river's floodplain. These habitats are related to and influenced by surface or subsurface waters, especially the margins of streams, lakes, ponds, wetlands, seeps, and ditches between land and a stream and above the average high watermark, or bank full height. Plant communities along the river and lake margins are called riparian vegetation, characterized by hydrophilic plants. This includes floodplain habitat, which may be restored to properly functioning conditions. (This excludes floodplain habitat influenced by the tides, which is classified as "Estuarine Habitat" for Pisces.) Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1528	# of acres of freshwater non-wetland habitat protected	Identify the total acres of habitat protected in the freshwater non-tidal habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the protected habitat zone times the average width of the protected habitat zone in feet / divided by 43,560 sq. ft./acre. (Note the total area protected for this WE should roughly equal the total acres identified in the purchase.) -Freshwater non-tidal: Habitat with freshwater flowing in a channel or watercourse, including lakes, ponds, and adjacent areas below the high water mark that is not subject to the tidal influence of the estuarine zone. -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.	☐	number	0.01
				1529	# of acres of freshwater wetland habitat protected	Identify the total acres of habitat protected in the freshwater non-tidal habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the protected habitat zone times the average width of the protected habitat zone in feet / divided by 43,560 sq. ft./acre. (Note the total area protected for this WE should roughly equal the total acres identified in the purchase.) -Freshwater non-tidal: Habitat with freshwater flowing in a channel or watercourse, including lakes, ponds, and adjacent areas below the high water mark that is not subject to the tidal influence of the estuarine zone. -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1530	# of acres of estuarine wetland habitat protected	Identify the total acres of habitat protected in the estuarine habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the protected habitat zone times the average width of the protected habitat zone in feet / divided by 43,560 sq. ft./acre. (Note the total area protected for this WE should roughly equal the total acres identified in the purchase.) -Estuarine: Habitat that is part of a semi-enclosed coastal body of water that is subject to the ebb and flow of tides, with one or more rivers or streams flowing into it, and with a free connection to the nearshore marine zone. This includes habitat impacted by the highest high and lowest low tides of a year. Estuaries are environments whose pH, salinity, and water levels are subject to the ebb and flow of tides, and the physical and chemical properties of the river that feeds the estuary and the ocean from which it derives its salinity. This habitat includes floodplain/riparian habitat subject to inundation from the tides. Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	□	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1531	# of acres of estuarine non-wetland habitat protected	Identify the total acres of habitat protected in the estuarine habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the protected habitat zone times the average width of the protected habitat zone in feet / divided by 43,560 sq. ft./acre. (Note the total area protected for this WE should roughly equal the total acres identified in the purchase.) -Estuarine: Habitat that is part of a semi-enclosed coastal body of water that is subject to the ebb and flow of tides, with one or more rivers or streams flowing into it, and with a free connection to the nearshore marine zone. This includes habitat impacted by the highest high and lowest low tides of a year. Estuaries are environments whose pH, salinity, and water levels are subject to the ebb and flow of tides, and the physical and chemical properties of the river that feeds the estuary and the ocean from which it derives its salinity. This habitat includes floodplain/riparian habitat subject to inundation from the tides. -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.	☐	number	0.01
				1556	# of miles protected in a riparian non-wetland area	Add length on both sides of stream when both sides are protected. Add one side when one side is protected. Normally, riparian habitat protection is intended for the benefit of fish.	☐	number	0.01
				1555	# of miles protected in a riparian wetland area	Add length on both sides of stream when both sides are protected. Add one side when one side is protected. Normally, riparian habitat protection is intended for the benefit of fish.	☐	number	0.01

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WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
22	Maintain Vegetation	Habitat/ Passage O&M	Your objective is to maintain or enhance planted or pre-existing vegetation through activities such as plant competition reduction (scalping, mats), mowing, irrigation, fertilization, herbicide application, or the prevention or reduction of animal damage (browse repellents, tree tubes). This includes using different, or the same, treatment techniques in previously treated areas the second year, or later, of planting. Maintenance activities which occur during the first (initial) year of planting (such as installing tree tubes, fertilizing, animal repellents, etc.) should be a milestone under WE#47, Plant Vegetation. [Work Element expired 09/30/2011]						
27	Remove Debris	Habitat/ Passage O&M	Removal of items such as trash, old buildings, and abandoned equipment from water or land. Does not include removal of a diversion or instream structure. For removal of organic matter when cleaning screens, use WE#186, Operate and Maintain Habitat/Passage/Structure.						
28	Trap and Haul	Habitat/ Passage O&M	Work to capture and transport fish usually by means of trucking or barging for the purpose of assisting upstream and/or downstream migration and/or fish salvage operations. If trapping and hauling for predator control use WE#190, Remove, Exclude and/or Relocate Animals. If installing a fish trap, use WE#70, Install Fish Monitoring Equipment.	1386	# of fish transported	Self-Explanatory	□	number	1.0

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
29	Increase Instream Habitat Complexity and Stabilization	Habitat Improvement	Work that adds natural materials instream to create habitat features or to improve channel morphology. Includes J-hooks, barbs, vortex weirs, and large woody debris (LWD). Can include work to stabilize or maintain a streambank, such as riprap, or improve complexity by creation of pools or fish spawning habitat by addition of gravel. If structures are being added primarily to overcome a fish passage barrier, use WE#184, Install Fish Passage Structure. If replacing or maintaining an existing structure use WE#186, Operate and Maintain Habitat/Passage/Structure. Also use WE#47, Plant Vegetation, if planting is used for bank stabilization or use WE#55, Erosion and Sedimentation Control, if other methods are used to control erosion in the riparian and upland zones.	1387	# of miles of stream with improved complexity	Self-Explanatory	☐	number	0.01
				1388	# of structures installed	For example: Over the course of two miles of stream, 10 J-hooks, 3 weirs and 35 pieces of LWD were placed; total number reported = 48. If the proposed channel work does not involve the creation of any instream habitat structures then please designate zero (0.0) for this metric.	☐	number	1.0
				1389	Start latitude of treated stream reach	This metric only applies to work in riparian areas. Must be entered in decimal degrees. For help converting from degrees, minutes, seconds go to http://www.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html.	☐	lat	0.000001
				1390	End latitude of treated stream reach	This metric only applies to work in riparian areas. Must be entered in decimal degrees. For help converting from degrees, minutes, seconds go to http://www.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html.	☐	lat	0.000001
				1391	Start longitude of treated stream reach	This metric only applies to work in riparian areas. Must be entered in decimal degrees. For help converting from degrees, minutes, seconds go to http://www.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html.	☐	long	0.000001
				1392	End longitude of treated stream reach	This metric only applies to work in riparian areas. Must be entered in decimal degrees. For help converting from degrees, minutes, seconds go to http://www.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html.	☐	long	0.000001

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
30	Realign, Connect, and/or Create Channel	Habitat Improvement	Active attempts to directly add sinuosity, meanders, side channels, and/or off-channel habitats (e.g., sloughs or oxbows). May include reconnection of historical channels (either via excavation or diversion of existing streamflow), excavation of new channels, and/or significantly improving the functionality of existing channels (e.g., creating a "natural" spawning channel for chum). If work is solely to add structures/features that change hydraulic conditions and that may eventually cause channel realignment, create a pool, or promote spawning then use WE#29, Increase Instream Habitat Complexity and Stabilization. If the work includes removal of a barrier for fish passage into upstream reaches of the existing channel, then use WE#84, Remove/Install Diversion, WE#85, Remove/Breach Fish Passage Barrier, or WE#184, Install Fish Passage Structure, since the miles of opened habitat must be recorded as a metric. If work is to create, restore, or enhance wetland function then use WE#181, Create, Restore, and/or Enhance Wetland.	1391	Start longitude of treated stream reach	This metric only applies to work in riparian areas. Must be entered in decimal degrees. For help converting from degrees, minutes, seconds go to http://www.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html.	☐	long	0.000001
				1389	Start latitude of treated stream reach	This metric only applies to work in riparian areas. Must be entered in decimal degrees. For help converting from degrees, minutes, seconds go to http://www.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html.	☐	lat	0.000001
				1390	End latitude of treated stream reach	This metric only applies to work in riparian areas. Must be entered in decimal degrees. For help converting from degrees, minutes, seconds go to http://www.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html.	☐	lat	0.000001
				1392	End longitude of treated stream reach	This metric only applies to work in riparian areas. Must be entered in decimal degrees. For help converting from degrees, minutes, seconds go to http://www.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html.	☐	long	0.000001
				1559	# of miles of freshwater stream before treatment	Self-Explanatory	☐	number	0.01
				1560	# of miles of estuarine stream before treatment	Self-Explanatory	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1561	# of miles of freshwater stream after treatment	Includes off-channels after realignment.	☐	number	0.01
				1562	# of miles of estuarine stream after treatment	Includes off-channels after realignment.	☐	number	0.01
				1522	# of acres of estuarine non-wetland habitat treated	Identify the total acres of habitat treated in the estuary habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Estuarine: Habitat that is part of a semi-enclosed coastal body of water that is subject to the ebb and flow of tides, with one or more rivers or streams flowing into it, and with a free connection to the nearshore marine zone. This includes habitat impacted by the highest high and lowest low tides of a year. Estuaries are environments whose pH, salinity, and water levels are subject to the ebb and flow of tides, and the physical and chemical properties of the river that feeds the estuary and the ocean from which it derives its salinity. This habitat includes floodplain/riparian habitat subject to inundation from the tides. -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.	☐	number	0.01
				1547	# of miles of stream treated with spawning gravel	Length of treatment in miles. This should be the total length of the stream to be treated with gravel placement (if placement of gravel is dumped with the expectation of distribution from high flows, identify the length of stream expected to be treated). The addition of gravel, sand and fine sediments into the stream with size ratios to support salmonid spawning and rearing.	☐	number	0.01
				1553	# of acres of freshwater wetland affected by treatment	Includes off-channels after realignment. Wetland is defined as meeting the federal standard for wetland delineation under the Clean Water Act. This metric only applies to work in a pre-existing wetland or work which reconnects historic wetland.	☐	number	0.01
				1554	# of acres of estuarine wetland affected by treatment	Includes off-channels after realignment. Wetland is defined as meeting the federal standard for wetland delineation under the Clean Water Act. This metric only applies to work in a pre-existing wetland or work which reconnects historic wetland.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1521	# of acres of estuarine wetland habitat treated	Identify the total acres of habitat treated in estuarine habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Estuarine: Habitat that is part of a semi-enclosed coastal body of water that is subject to the ebb and flow of tides, with one or more rivers or streams flowing into it, and with a free connection to the nearshore marine zone. This includes habitat impacted by the highest high and lowest low tides of a year. Estuaries are environments whose pH, salinity, and water levels are subject to the ebb and flow of tides, and the physical and chemical properties of the river that feeds the estuary and the ocean from which it derives its salinity. This habitat includes floodplain/riparian habitat subject to inundation from the tides. -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	☐	number	0.01

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				1517	# of acres of riparian non-wetland habitat treated	Identify the total acres of habitat treated in the riparian non-wetland habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Riparian: Transition zone between aquatic and upland habitat typically within a river's floodplain. These habitats are related to and influenced by surface or subsurface waters, especially the margins of streams, lakes, ponds, wetlands, seeps, and ditches between land and a stream and above the average high watermark, or bank full height. Plant communities along the river and lake margins are called riparian vegetation, characterized by hydrophilic plants. This includes floodplain habitat, which may be restored to properly functioning conditions. (This excludes floodplain habitat influenced by the tides, which is classified as "Estuarine Habitat" for Pisces.) -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.	□	number	0.01

Metric Guidance by Work Element

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				1518	# of acres of riparian wetland habitat treated	Identify the total acres of habitat treated in riparian habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Riparian: Transition zone between aquatic and upland habitat typically within a river's floodplain. These habitats are related to and influenced by surface or subsurface waters, especially the margins of streams, lakes, ponds, wetlands, seeps, and ditches between land and a stream and above the average high watermark, or bank full height. Plant communities along the river and lake margins are called riparian vegetation, characterized by hydrophilic plants. This includes floodplain habitat, which may be restored to properly functioning conditions. (This excludes floodplain habitat influenced by the tides, which is classified as "Estuarine Habitat" for Pisces.) -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	☐	number	0.01
				1519	# of acres of freshwater non-wetland habitat treated	Identify the total acres of habitat treated in the freshwater non-tidal habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Freshwater non-tidal: Habitat with freshwater flowing in a channel or watercourse, including lakes, ponds, and adjacent areas below the high water mark that is not subject to the tidal influence of the estuarine zone. -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.	☐	number	0.01

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WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1520	# of acres of freshwater wetland habitat treated	Identify the total acres of habitat treated in the freshwater non-tidal habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Freshwater non-tidal: Habitat with freshwater flowing in a channel or watercourse, including lakes, ponds, and adjacent areas below the high water mark that is not subject to the tidal influence of the estuarine zone. -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	☐	number	0.01
				1388	# of structures installed	If within the period of channel construction, complexity structures are going to be built such as, Weirs, J-hooks, or LWD structures, then report the total number of structures to be completed. For example, if 10 J-hooks, 3 weirs and 35 pieces of LWD are to be placed; total number reported = 48.	☐	number	1.0
31	Conduct Controlled Burn	Habitat Improvement	Use of fire to improve habitat. [Work Element expired 09/30/2010]	1515	# of acres of upland non-wetland habitat treated	Identify the total acres of habitat treated in the upland habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Upland: Habitat upslope of the riparian and instream habitat zone with non-hydrophilic plants, unless part of an isolated wetland, which occurs outside the hyporheic, or floodplain/riparian zone. -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1516	# of acres of upland wetland habitat treated	Identify the total acres of habitat treated in the upland habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Upland: Habitat upslope of the riparian and instream habitat zone with non-hydrophilic plants, unless part of an isolated wetland, which occurs outside the hyporheic, or floodplain/riparian zone. -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	☐	number	0.01
				1517	# of acres of riparian non-wetland habitat treated	Identify the total acres of habitat treated in the riparian non-wetland habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Riparian: Transition zone between aquatic and upland habitat typically within a river's floodplain. These habitats are related to and influenced by surface or subsurface waters, especially the margins of streams, lakes, ponds, wetlands, seeps, and ditches between land and a stream and above the average high watermark, or bank full height. Plant communities along the river and lake margins are called riparian vegetation, characterized by hydrophilic plants. This includes floodplain habitat, which may be restored to properly functioning conditions. (This excludes floodplain habitat influenced by the tides, which is classified as "Estuarine Habitat" for Pisces.) -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1518	# of acres of riparian wetland habitat treated	Identify the total acres of habitat treated in riparian habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Riparian: Transition zone between aquatic and upland habitat typically within a river's floodplain. These habitats are related to and influenced by surface or subsurface waters, especially the margins of streams, lakes, ponds, wetlands, seeps, and ditches between land and a stream and above the average high watermark, or bank full height. Plant communities along the river and lake margins are called riparian vegetation, characterized by hydrophilic plants. This includes floodplain habitat, which may be restored to properly functioning conditions. (This excludes floodplain habitat influenced by the tides, which is classified as "Estuarine Habitat" for Pisces.) -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	☐	number	0.01
33	Decommission Road/Relocate Road	Habitat Improvement	Any activity that makes a road or trail unusable including adding berms, pits, boulders or logs, and/or ripping, scarifying, recontouring, or obliterating the road or trail with heavy equipment that may involve re-contouring the slope. Also use for building a road or trail in a more appropriate location to replace a decommissioned road or trail. If decommissioning by planting vegetation or seeding use WE#47, Plant Vegetation. If removal of fish barrier (e.g., culvert) is included, also use WE#84, Remove/Install Diversion, WE#85, Remove/Breach Fish Passage Barrier, or WE#184, Install Fish Passage Structure. If work also involves channel realignment, use WE#30, Realign, Connect, and/or Create Channel in addition to this work element.	1533	# of miles of new trail relocated in an estuarine area	The length of new trails created in miles in the estuary zone. The estuary zone includes habitat that is part of a semi-enclosed coastal body of water that is subject to the ebb and flow of tides, with one or more rivers or streams flowing into it, and with a free connection to the nearshore marine zone. Estuaries are environments whose pH, salinity, and water levels are subject to the ebb and flow of tides, and the physical and chemical properties of the river that feeds the estuary and the ocean from which it derives its salinity. This habitat zone includes tidal wetland habitat.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1534	# of miles of road improved or decommissioned in an estuarine area	The length of road treated in miles in the estuary zone. The estuary zone includes habitat that is part of a semi-enclosed coastal body of water that is subject to the ebb and flow of tides, with one or more rivers or streams flowing into it, and with a free connection to the nearshore marine zone. Estuaries are environments whose pH, salinity, and water levels are subject to the ebb and flow of tides, and the physical and chemical properties of the river that feeds the estuary and the ocean from which it derives its salinity. This habitat zone includes tidal wetland habitat.	☐	number	0.01
				1523	Average width of treatment	The average width (in feet) modified/created or road treated or altered.	☐	number	0.01
				1535	# of miles of road or trail created/relocated in the estuarine zone	The length of new road, or trail or trail relocated in miles in the estuarine habitat zone. (This metric value will = 0 if decommisionsing is done without relocation) To calculate the length in miles divide the total length of new road or trail (in feet) created by 5,280 feet/mile. -Estuarine habitat is defined as: Habitat that is part of a semi-enclosed coastal body of water that is subject to the ebb and flow of tides, with one or more rivers or streams flowing into it, and with a free connection to the nearshore marine zone. This includes habitat impacted by the highest high and lowest low tides of a year. Estuaries are environments whose pH, salinity, and water levels are subject to the ebb and flow of tides, and the physical and chemical properties of the river that feeds the estuary and the ocean from which it derives its salinity. This habitat includes floodplain/riparian habitat subject to inundation from the tides.	☐	number	0.01
				1540	Start latitude of created road or trail segment	Start latitude of trail or road creation project. Must be entered in decimal degrees. For help converting from degrees, minutes, seconds go to http://www.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html.	☐	lat	0.000001
				1541	End latitude of created road or trail segment	Start ongitude of trail or road creation project. Must be entered in decimal degrees. For help converting from degrees, minutes, seconds go to http://www.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html.	☐	lat	0.000001
				1542	Start longitude of created road or trail segment	End latitude of trail or road creation project. Must be entered in decimal degrees. For help converting from degrees, minutes, seconds go to http://www.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html.	☐	long	0.000001

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1543	End longitude of created road or trail segment	End ongitude of trail or road creation project. Must be entered in decimal degrees. For help converting from degrees, minutes, seconds go to http://www.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html.	☐	long	0.000001
				1558	# of miles of trail improved or decommissioned in an estuarine non-wetland area	The length of new trails created in miles in the estuary zone. The estuary zone includes habitat that is part of a semi-enclosed coastal body of water that is subject to the ebb and flow of tides, with one or more rivers or streams flowing into it, and with a free connection to the nearshore marine zone. Estuaries are environments whose pH, salinity, and water levels are subject to the ebb and flow of tides, and the physical and chemical properties of the river that feeds the estuary and the ocean from which it derives its salinity. This habitat zone includes tidal wetland habitat.	☐	number	0.01
				1557	# of miles of trail improved or decommissioned in an estuarine wetland area	The length of new trails created in miles in the estuary zone. The estuary zone includes habitat that is part of a semi-enclosed coastal body of water that is subject to the ebb and flow of tides, with one or more rivers or streams flowing into it, and with a free connection to the nearshore marine zone. Estuaries are environments whose pH, salinity, and water levels are subject to the ebb and flow of tides, and the physical and chemical properties of the river that feeds the estuary and the ocean from which it derives its salinity. This habitat zone includes tidal wetland habitat.	☐	number	0.01
				1482	# of miles of road or trail created/relocated in the riparian zone	The length of new road or trail relocated in miles in the riparian habitat zone. (This metric value will = 0 if decommisionsing is done without relocation) To calculate the length in miles divide the total length of new road or trail (in feet) created by 5,280 feet/mile. -The riparian zone is defined as: the transition zone between aquatic and upland habitat typically within a rivers floodplain. These habitats are related to and influenced by surface or subsurface waters, especially the margins of streams, lakes, ponds, wetlands, seeps, and ditches between land and a stream and above the average high watermark, or bank full height. Plant communities along the river and lake margins are called riparian vegetation, characterized by hydrophilic plants. This includes floodplain habitat, which may be restored to properly functioning conditions. (This excludes floodplain habitat influenced by the tides, which is classified as "Estuarine Habitat" for Pisces.)	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1483	# of miles of road or trail created/relocated in the upland zone	The length of new road, or trail or trail relocated in miles in the upland habitat zone. (This metric value will = 0 if decommissioning is done without relocation) To calculate the length in miles divide the total length of new road or trail (in feet) created by 5,280 feet/mile. -Upland habitat is defined as: habitat upslope of the riparian and instream habitat zone with non-hydrophilic plants, unless part of an isolated wetland, which occurs outside the hyporheic, or floodplain/riparian zone.	☐	number	0.01
				1484	# of miles of new trail relocated in riparian area	Riparian is defined as above the ordinary high water mark of the stream and within the flood plain of streams. To determine total miles treated, we will sum the upland and riparian mileage.	☐	number	0.01
				1485	# of miles of new trail relocated in upland area	Upland is defined as above the elevation of the riparian zone (above the floodplain). To determine total miles treated, we will sum the upland and riparian mileage.	☐	number	0.01
				1486	# of miles of trail improved or decommissioned in a riparian area	Riparian is defined as above the ordinary high water mark of the stream and within the flood plain of streams. To determine total miles treated, we will sum the upland and riparian mileage.	☐	number	0.01
				1487	# of miles of trail improved or decommissioned in an upland area	Upland is defined as above the elevation of the riparian zone (above the floodplain). To determine total miles treated, we will sum the upland and riparian mileage.	☐	number	0.01
				1393	Type of decommissioning [Blocked, Scarified/Ripped, Recontoured]	Self-Explanatory	☐	list	
				1394	# of miles of road improved or decommissioned in a riparian area	Riparian is defined as above the ordinary high water mark of the stream and within the flood plain of streams. To determine total miles treated, we will sum the upland and riparian mileage.	☐	number	0.01
				1395	# of miles of road improved or decommissioned in an upland area	Upland is defined as above the elevation of the riparian zone (above the floodplain). To determine total miles treated, we will sum the upland and riparian mileage.	☐	number	0.01
				1396	Start latitude of treated road or trail segment	Must be entered in decimal degrees. For help converting from degrees, minutes, seconds go to http://www.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html.	☐	lat	0.000001
				1397	End latitude of treated road or trail segment	Must be entered in decimal degrees. For help converting from degrees, minutes, seconds go to http://www.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html.	☐	lat	0.000001

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1398	Start longitude of treated road or trail segment	Must be entered in decimal degrees. For help converting from degrees, minutes, seconds go to http://www.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html.	☐	long	0.000001
				1399	End longitude of treated road or trail segment	Must be entered in decimal degrees. For help converting from degrees, minutes, seconds go to http://www.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html.	☐	long	0.000001
34	Develop Alternative Water Source	Habitat Improvement	Provision of water supply for livestock that is out of the riparian zone. Also called livestock water development or livestock water supply. Includes, but not limited to, watering troughs, spring and well development, and guzzler installation.	1569	# of alternate water sources installed	The number of objects installed or treated in total.	☐	number	1.0
36	Develop Terrestrial Habitat Features	Habitat Improvement	Includes the installation and/or creation of structures for the benefit of wildlife species, including, but not limited to, nest boxes/platforms, avian perches, snags, guzzlers, and artificial roosting sites.	1400	# of features developed	Self-Explanatory	☐	number	1.0
38	Improve Road	Habitat Improvement	Work designed to eliminate or reduce erosion, sediment, and/or toxic run-off from reaching streams, rivers, or wetlands from roads or trails currently in use. This includes road projects that reduce or eliminate inter-basin transfer of water, placement of structures to contain/ control run-off from roads or trails, road or trail reconstruction or reinforcement, surface and peak-flow drainage improvements, and roadside vegetation. These roads may be in or extend into the riparian zone.	1394	# of miles of road improved or decommissioned in a riparian area	Riparian is defined as above the ordinary high water mark of the stream and within the flood plain of streams. To determine total miles treated, we will sum the upland and riparian mileage.	☐	number	0.01
				1395	# of miles of road improved or decommissioned in an upland area	Upland is defined as above the elevation of the riparian zone (above the floodplain). To determine total miles treated, we will sum the upland and riparian mileage.	☐	number	0.01
				1486	# of miles of trail improved or decommissioned in a riparian area	Riparian is defined as above the ordinary high water mark of the stream and within the flood plain of streams. To determine total miles treated, we will sum the upland and riparian mileage.	☐	number	0.01
				1487	# of miles of trail improved or decommissioned in an upland area	Upland is defined as above the elevation of the riparian zone (above the floodplain). To determine total miles treated, we will sum the upland and riparian mileage.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1557	# of miles of trail improved or decommissioned in an estuarine wetland area	The length of new trails created in miles in the estuary zone. The estuary zone includes habitat that is part of a semi-enclosed coastal body of water that is subject to the ebb and flow of tides, with one or more rivers or streams flowing into it, and with a free connection to the nearshore marine zone. Estuaries are environments whose pH, salinity, and water levels are subject to the ebb and flow of tides, and the physical and chemical properties of the river that feeds the estuary and the ocean from which it derives its salinity. This habitat zone includes tidal wetland habitat.	☐	number	0.01
				1558	# of miles of trail improved or decommissioned in an estuarine non-wetland area	The length of new trails created in miles in the estuary zone. The estuary zone includes habitat that is part of a semi-enclosed coastal body of water that is subject to the ebb and flow of tides, with one or more rivers or streams flowing into it, and with a free connection to the nearshore marine zone. Estuaries are environments whose pH, salinity, and water levels are subject to the ebb and flow of tides, and the physical and chemical properties of the river that feeds the estuary and the ocean from which it derives its salinity. This habitat zone includes tidal wetland habitat.	☐	number	0.01
				1523	Average width of treatment	The average width (in feet) modified/created or road treated or altered.	☐	number	0.01
				1534	# of miles of road improved or decommissioned in an estuarine area	The length of road treated in miles in the estuary zone. The estuary zone includes habitat that is part of a semi-enclosed coastal body of water that is subject to the ebb and flow of tides, with one or more rivers or streams flowing into it, and with a free connection to the nearshore marine zone. Estuaries are environments whose pH, salinity, and water levels are subject to the ebb and flow of tides, and the physical and chemical properties of the river that feeds the estuary and the ocean from which it derives its salinity. This habitat zone includes tidal wetland habitat.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
40	Install Fence	Habitat Improvement	Work to install various types of fence and/or gates. One should also include cattle guards or water gaps for livestock as part of the deliverable if these are applicable. This work is not generally intended to be used for upland fencing for pasture rotation purposes. Upland fencing for fish will be considered on a case by case basis. Upland fencing is authorized for parcels managed for wildlife if this is part of a management plan to exclude livestock. If work is to repair a fence or exclusion device, use WE#186, Operate and Maintain Habitat/Passage/Structure Structure. If a lease or other land use agreement of greater than 15 years is completed as part of the fence installation, you must also use WE#92, Lease Land in addition to WE#40, Install Fence (i.e., if you have an agreement for less than 15 years, only use WE#40, Install Fence). For a renewal of a lease or land use agreement that extends the period of time for fence protection, you must use WE#92, Lease Land instead of WE#40, Install Fence.	1546	# of miles of fence installed in an estuarine area	The length of fence treated in miles in the estuary zone. The estuary zone includes habitat that is part of a semi-enclosed coastal body of water that is subject to the ebb and flow of tides, with one or more rivers or streams flowing into it, and with a free connection to the nearshore marine zone. Estuaries are environments whose pH, salinity, and water levels are subject to the ebb and flow of tides, and the physical and chemical properties of the river that feeds the estuary and the ocean from which it derives its salinity. This habitat zone includes tidal wetland habitat.	☐	number	0.01
				1549	# of miles of left streambank fenced in a freshwater area	Measure the streambank length protected by the fence installed by using the route of the center of channel. The measurement should reflect the total center of channel counted for the left side of the stream, if looking downstream. This excludes the length of streambank associated with side channel or inlets.	☐	number	0.01
				1550	# of miles of left streambank fenced in an estuarine area	Measure the streambank length protected by the fence installed, by using the route of the center of channel protected. The measurement should reflect the total center of channel counted for the left side, if looking downstream. This excludes the length of streambank associated with side channel or inlets.	☐	number	0.01
				1551	# of miles of right streambank fenced in a freshwater area	Measure the streambank length protected by the fence installed by using the route of the center of channel protected. The measurement should reflect the center of channel counted for the right side, if looking downstream. This excludes the length of streambank associated with side channel or inlets.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1552	# of miles of right streambank fenced in an estuarine area	Measure the streambank length protected by the fence installed by using the route of the center of channel protected. The measurement should reflect the center of channel counted for the right side, if looking downstream. This excludes the length of streambank associated with side channel or inlets.		number	0.01
				1391	Start longitude of treated stream reach	This metric only applies to work in riparian areas. Must be entered in decimal degrees. For help converting from degrees, minutes, seconds go to http://www.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html.		long	0.000001
				1392	End longitude of treated stream reach	This metric only applies to work in riparian areas. Must be entered in decimal degrees. For help converting from degrees, minutes, seconds go to http://www.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html.		long	0.000001
				1401	# of miles of fence installed in a riparian area	Number of miles of fence built to protect a riparian area. May include fencing above the floodplain if the purpose is to exclude livestock from the riparian area. Riparian is defined as above the ordinary high water mark of the stream and within the flood plain of streams. To determine total miles treated, we will sum the upland and riparian mileage.		number	0.01
				1402	# of miles of fence installed in an upland area	Number of miles of fence built in an upland area for purposes other than excluding livestock from riparian areas. Upland is defined as above the elevation of the riparian zone (above the floodplain). To determine total miles treated, we will sum the upland and riparian mileage.		number	0.01
				1389	Start latitude of treated stream reach	This metric only applies to work in riparian areas. Must be entered in decimal degrees. For help converting from degrees, minutes, seconds go to http://www.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html.		lat	0.000001
				1390	End latitude of treated stream reach	This metric only applies to work in riparian areas. Must be entered in decimal degrees. For help converting from degrees, minutes, seconds go to http://www.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html.		lat	0.000001

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1527	# of acres of riparian wetland habitat protected	Identify the total acres of habitat protected in the riparian habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the protected habitat zone times the average width of the protected habitat zone in feet / divided by 43,560 sq. ft./acre. (Note the total area protected for this WE should roughly equal the total length fenced times the average buffer width.) -Riparian: Transition zone between aquatic and upland habitat typically within a river's floodplain. These habitats are related to and influenced by surface or subsurface waters, especially the margins of streams, lakes, ponds, wetlands, seeps, and ditches between land and a stream and above the average high watermark, or bank full height. Plant communities along the river and lake margins are called riparian vegetation, characterized by hydrophilic plants. This includes floodplain habitat, which may be restored to properly functioning conditions. (This excludes floodplain habitat influenced by the tides, which is classified as "Estuarine Habitat" for Pisces.) -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1526	# of acres of riparian non-wetland habitat protected	Identify the total acres of habitat protected in the riparian habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the protected habitat zone times the average width of the protected habitat zone in feet / divided by 43,560 sq. ft./acre. (Note the total area protected for this WE should roughly equal the total length fenced times the average buffer width.) -Riparian: Transition zone between aquatic and upland habitat typically within a river's floodplain. These habitats are related to and influenced by surface or subsurface waters, especially the margins of streams, lakes, ponds, wetlands, seeps, and ditches between land and a stream and above the average high watermark, or bank full height. Plant communities along the river and lake margins are called riparian vegetation, characterized by hydrophilic plants. This includes floodplain habitat, which may be restored to properly functioning conditions. (This excludes floodplain habitat influenced by the tides, which is classified as "Estuarine Habitat" for Pisces.) -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1530	# of acres of estuarine wetland habitat protected	Identify the total acres of habitat protected in the estuarine habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the protected habitat zone times the average width of the protected habitat zone in feet / divided by 43,560 sq. ft./acre. (Note the total area protected for this WE should roughly equal the total length fenced times the average buffer width.) -Estuarine: Habitat that is part of a semi-enclosed coastal body of water that is subject to the ebb and flow of tides, with one or more rivers or streams flowing into it, and with a free connection to the nearshore marine zone. This includes habitat impacted by the highest high and lowest low tides of a year. Estuaries are environments whose pH, salinity, and water levels are subject to the ebb and flow of tides, and the physical and chemical properties of the river that feeds the estuary and the ocean from which it derives its salinity. This habitat includes floodplain/riparian habitat subject to inundation from the tides. -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1531	# of acres of estuarine non-wetland habitat protected	Identify the total acres of habitat protected in the estuarine habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the protected habitat zone times the average width of the protected habitat zone in feet / divided by 43,560 sq. ft./acre. (Note the total area protected for this WE should roughly equal the total length fenced times the average buffer width.) -Estuarine: Habitat that is part of a semi-enclosed coastal body of water that is subject to the ebb and flow of tides, with one or more rivers or streams flowing into it, and with a free connection to the nearshore marine zone. This includes habitat impacted by the highest high and lowest low tides of a year. Estuaries are environments whose pH, salinity, and water levels are subject to the ebb and flow of tides, and the physical and chemical properties of the river that feeds the estuary and the ocean from which it derives its salinity. This habitat includes floodplain/riparian habitat subject to inundation from the tides. -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.	☐	number	0.01
				1525	# of acres of upland wetland habitat protected	Identify the total acres of habitat protected in the upland habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the protected habitat zone times the average width of the protected habitat zone in feet / divided by 43,560 sq. ft./acre. (Note the total area protected for this WE should roughly equal the total length fenced times the average buffer width.) -Upland: Habitat upslope of the riparian and instream habitat zone with non-hydrophilic plants, unless part of an isolated wetland, which occurs outside the hyporheic, or floodplain/riparian zone. -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1524	# of acres of upland non-wetland habitat protected	Identify the total acres of habitat protected in the upland habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the protected habitat zone times the average width of the protected habitat zone in feet / divided by 43,560 sq. ft./acre. (Note the total area protected for this WE should roughly equal the total length fenced times the average buffer width.) -Upland: Habitat upslope of the riparian and instream habitat zone with non-hydrophilic plants, unless part of an isolated wetland, which occurs outside the hyporheic, or floodplain/riparian zone. -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.	☐	number	0.01
44	Enhance Nutrients Instream	Habitat Improvement	Addition of fish carcasses, or direct nutrient introduction methods to improve biological diversity in a stream or river.	1570	# of miles of stream treated with nutrients	TBD	☐	number	0.01
				1523	Average width of treatment	The average wetted width (in feet) of channel treated or altered.	☐	number	0.01
				1387	# of miles of stream with improved complexity	Self-Explanatory	☐	number	0.01
				1548	# of lbs of fertilizer added	Weight of the fish carcass, nutrient analog or fertilizer released into the stream for nutrient enrichment.	☐	number	0.1

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
47	Plant Vegetation	Habitat Improvement	Use during the first year (and only first year) of planting terrestrial or aquatic vegetation and/or applying seed (aerially, mechanically, and/or by hand) for purposes such as: wildlife cover and forage enhancement, erosion control and soil stabilization (run-off reduction and other soil destabilizing processes and activities not related to restoration after construction of facilities such as passage structures, buildings, or fish hatcheries), roughness recruitment, shading, restoration of native habitat, restoration after wildfires, and rehabilitation of removed roads/trails. All maintenance activities (irrigation, site prep, survival survey) which occur during the same contract period as planting/seeding should be included in this WE as milestones. See associated work elements and notes for this WE#47, Plant Vegetation for more guidance.	1522	# of acres of estuarine non-wetland habitat treated	Identify the total acres of habitat treated in the estuary habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Estuarine: Habitat that is part of a semi-enclosed coastal body of water that is subject to the ebb and flow of tides, with one or more rivers or streams flowing into it, and with a free connection to the nearshore marine zone. This includes habitat impacted by the highest high and lowest low tides of a year. Estuaries are environments whose pH, salinity, and water levels are subject to the ebb and flow of tides, and the physical and chemical properties of the river that feeds the estuary and the ocean from which it derives its salinity. This habitat includes floodplain/riparian habitat subject to inundation from the tides. -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.	☐	number	0.01
				1519	# of acres of freshwater non-wetland habitat treated	Identify the total acres of habitat treated in the freshwater non-tidal habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Freshwater non-tidal: Habitat with freshwater flowing in a channel or watercourse, including lakes, ponds, and adjacent areas below the high water mark that is not subject to the tidal influence of the estuarine zone. -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1521	# of acres of estuarine wetland habitat treated	Identify the total acres of habitat treated in estuarine habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Estuarine: Habitat that is part of a semi-enclosed coastal body of water that is subject to the ebb and flow of tides, with one or more rivers or streams flowing into it, and with a free connection to the nearshore marine zone. This includes habitat impacted by the highest high and lowest low tides of a year. Estuaries are environments whose pH, salinity, and water levels are subject to the ebb and flow of tides, and the physical and chemical properties of the river that feeds the estuary and the ocean from which it derives its salinity. This habitat includes floodplain/riparian habitat subject to inundation from the tides. -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	□	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1517	# of acres of riparian non-wetland habitat treated	Identify the total acres of habitat treated in the riparian non-wetland habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Riparian: Transition zone between aquatic and upland habitat typically within a river's floodplain. These habitats are related to and influenced by surface or subsurface waters, especially the margins of streams, lakes, ponds, wetlands, seeps, and ditches between land and a stream and above the average high watermark, or bank full height. Plant communities along the river and lake margins are called riparian vegetation, characterized by hydrophilic plants. This includes floodplain habitat, which may be restored to properly functioning conditions. (This excludes floodplain habitat influenced by the tides, which is classified as "Estuarine Habitat" for Pisces.) -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.		number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1518	# of acres of riparian wetland habitat treated	Identify the total acres of habitat treated in riparian habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Riparian: Transition zone between aquatic and upland habitat typically within a river's floodplain. These habitats are related to and influenced by surface or subsurface waters, especially the margins of streams, lakes, ponds, wetlands, seeps, and ditches between land and a stream and above the average high watermark, or bank full height. Plant communities along the river and lake margins are called riparian vegetation, characterized by hydrophilic plants. This includes floodplain habitat, which may be restored to properly functioning conditions. (This excludes floodplain habitat influenced by the tides, which is classified as "Estuarine Habitat" for Pisces.) -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1520	# of acres of freshwater wetland habitat treated	Identify the total acres of habitat treated in the freshwater non-tidal habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Freshwater non-tidal: Habitat with freshwater flowing in a channel or watercourse, including lakes, ponds, and adjacent areas below the high water mark that is not subject to the tidal influence of the estuarine zone. -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	□	number	0.01
				1516	# of acres of upland wetland habitat treated	Identify the total acres of habitat treated in the upland habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Upland: Habitat upslope of the riparian and instream habitat zone with non-hydrophilic plants, unless part of an isolated wetland, which occurs outside the hyporheic, or floodplain/riparian zone. -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	□	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1515	# of acres of upland non-wetland habitat treated	Identify the total acres of habitat treated in the upland habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Upland: Habitat upslope of the riparian and instream habitat zone with non-hydrophilic plants, unless part of an isolated wetland, which occurs outside the hyporheic, or floodplain/riparian zone. -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.	□	number	0.01
				1406	# of riparian miles treated	To calculate the length of riparian streambank habitat treated in miles, the measurement should reflect the length of the center of channel counted for the right side, if looking downstream; or left side looking downstream; or both, if both banks are treated. This excludes the length of streambank associated with unnamed tributaries, side channels or inlets. - Riparian: Transition zone between aquatic and upland habitat typically within a river's floodplain. These habitats are related to and influenced by surface or subsurface waters, especially the margins of streams, lakes, ponds, wetlands, seeps, and ditches between land and a stream and above the average high watermark, or bank full height. Plant communities along the river and lake margins are called riparian vegetation, characterized by hydrophilic plants. This includes floodplain habitat, which may be restored to properly functioning conditions. (This excludes floodplain habitat influenced by the tides, which is classified as "Estuarine Habitat" for Pisces.)	□	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
48	Practice No-till and Conservation Tillage Systems	Habitat Improvement	Includes establishing conservation tillage systems that focus on increased crop residue during subsequent crop seeding, and/or the reduction or elimination of traditional tilling practices. Work may also include the purchase of chaff chopper/spreaders and other equipment (generally co-operatively purchased) designed to aid in no- or reduced- till operations and crop residue enhancement.	1515	# of acres of upland non-wetland habitat treated	Identify the total acres of habitat treated in the upland habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Upland: Habitat upslope of the riparian and instream habitat zone with non-hydrophilic plants, unless part of an isolated wetland, which occurs outside the hyporheic, or floodplain/riparian zone. -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.	□	number	0.01
				1516	# of acres of upland wetland habitat treated	Identify the total acres of habitat treated in the upland habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Upland: Habitat upslope of the riparian and instream habitat zone with non-hydrophilic plants, unless part of an isolated wetland, which occurs outside the hyporheic, or floodplain/riparian zone. -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	□	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1517	# of acres of riparian non-wetland habitat treated	Identify the total acres of habitat treated in the riparian non-wetland habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Riparian: Transition zone between aquatic and upland habitat typically within a river's floodplain. These habitats are related to and influenced by surface or subsurface waters, especially the margins of streams, lakes, ponds, wetlands, seeps, and ditches between land and a stream and above the average high watermark, or bank full height. Plant communities along the river and lake margins are called riparian vegetation, characterized by hydrophilic plants. This includes floodplain habitat, which may be restored to properly functioning conditions. (This excludes floodplain habitat influenced by the tides, which is classified as "Estuarine Habitat" for Pisces.) -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.		number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1518	# of acres of riparian wetland habitat treated	Identify the total acres of habitat treated in riparian habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Riparian: Transition zone between aquatic and upland habitat typically within a river's floodplain. These habitats are related to and influenced by surface or subsurface waters, especially the margins of streams, lakes, ponds, wetlands, seeps, and ditches between land and a stream and above the average high watermark, or bank full height. Plant communities along the river and lake margins are called riparian vegetation, characterized by hydrophilic plants. This includes floodplain habitat, which may be restored to properly functioning conditions. (This excludes floodplain habitat influenced by the tides, which is classified as "Estuarine Habitat" for Pisces.) -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
52	Remove Mine Tailings	Habitat Improvement	Work to remove or re-contour remnant landscape effects from old mining operations. Could be terrestrial or aquatic in nature. If work also creates wetland or modifies channel use WE#181, Create, Restore, and/or Enhance Wetland and WE#30, Realign, Connect, and/or Create Channel.	1518	# of acres of riparian wetland habitat treated	Identify the total acres of habitat treated in riparian habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Riparian: Transition zone between aquatic and upland habitat typically within a river's floodplain. These habitats are related to and influenced by surface or subsurface waters, especially the margins of streams, lakes, ponds, wetlands, seeps, and ditches between land and a stream and above the average high watermark, or bank full height. Plant communities along the river and lake margins are called riparian vegetation, characterized by hydrophilic plants. This includes floodplain habitat, which may be restored to properly functioning conditions. (This excludes floodplain habitat influenced by the tides, which is classified as "Estuarine Habitat" for Pisces.) -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	□	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1520	# of acres of freshwater wetland habitat treated	Identify the total acres of habitat treated in the freshwater non-tidal habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Freshwater non-tidal: Habitat with freshwater flowing in a channel or watercourse, including lakes, ponds, and adjacent areas below the high water mark that is not subject to the tidal influence of the estuarine zone. -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	☐	number	0.01
				1519	# of acres of freshwater non-wetland habitat treated	Identify the total acres of habitat treated in the freshwater non-tidal habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Freshwater non-tidal: Habitat with freshwater flowing in a channel or watercourse, including lakes, ponds, and adjacent areas below the high water mark that is not subject to the tidal influence of the estuarine zone. -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.	☐	number	0.01
				1563	# of barriers in the freshwater zone	The count of barriers addressed is the total number of fish passage barriers removed at a specified worksite. This is not the number of individual fish passage structure types but the structural blockages as a whole that may be quantified by one Latitude and Longitude and is used to calculate the distance upstream to the next barrier. A barrier in PISCES will be defined as passage barriers created from increased sediment from mine tailings that result in a passage impairment from subsurface flows.	☐	number	1.0

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1517	# of acres of riparian non-wetland habitat treated	Identify the total acres of habitat treated in the riparian non-wetland habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Riparian: Transition zone between aquatic and upland habitat typically within a river's floodplain. These habitats are related to and influenced by surface or subsurface waters, especially the margins of streams, lakes, ponds, wetlands, seeps, and ditches between land and a stream and above the average high watermark, or bank full height. Plant communities along the river and lake margins are called riparian vegetation, characterized by hydrophilic plants. This includes floodplain habitat, which may be restored to properly functioning conditions. (This excludes floodplain habitat influenced by the tides, which is classified as "Estuarine Habitat" for Pisces.) -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.		number	0.01
				1516	# of acres of upland wetland habitat treated	Identify the total acres of habitat treated in the upland habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Upland: Habitat upslope of the riparian and instream habitat zone with non-hydrophilic plants, unless part of an isolated wetland, which occurs outside the hyporheic, or floodplain/riparian zone. -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.		number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1515	# of acres of upland non-wetland habitat treated	Identify the total acres of habitat treated in the upland habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Upland: Habitat upslope of the riparian and instream habitat zone with non-hydrophilic plants, unless part of an isolated wetland, which occurs outside the hyporheic, or floodplain/riparian zone. -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.	☐	number	0.01
				1407	Was barrier Full or Partial?	Applies to the removal of mine tailings in aquatic habitat.		list	
				1408	Did the tailings create a fish passage barrier?	Applies to the removal of mine tailings in aquatic habitat.	☐	list	
				1441	# of miles of habitat accessed to the next upstream barrier(s) or likely limit of habitable range	The length of stream made accessible to the next upstream barrier to fish passage in miles. To calculate miles, divide the total length of feet by 5,280 ft/per mile. Note: If this metric is captured for this barrier under another work element, put "0" here.	☐	number	0.01
				1564	# of barriers in the estuarine zone	The count of barriers addressed is the total number of fish passage barriers removed at a specified worksite. This is not the number of individual fish passage structure types but the structural blockages as a whole that may be quantified by one Latitude and Longitude and is used to calculate the distance upstream to the next barrier. A barrier in PISCES will be defined as passage barriers created from increased sediment from mine tailings that result in a passage impairment from subsurface flows.	☐	number	1.0

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
53	Remove Vegetation	Habitat Improvement	Removal of one or more plant species, or a number of individuals of a plant species, by mechanical, biological, and/or chemical means, or by controlled burn. Target species are often exotic or non-native plants, naturalized plants, or undesirable native plants, all of which may be considered to be noxious, invasive or "weeds". Includes the removal of both aquatic and terrestrial plants as well as tree stand manipulation due to encroachment or to create forage openings. [Work Element expired 09/30/2011]	1517	# of acres of riparian non-wetland habitat treated	Identify the total acres of habitat treated in the riparian habitat zone. The treatment area is the unit area where plant removal techniques are applied in the riparian non-wetland zone. (Spot treatment of chemicals or other techniques should only report the area chemicals are actually applied.) To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Riparian: Transition zone between aquatic and upland habitat typically within a river's floodplain. These habitats are related to and influenced by surface or subsurface waters, especially the margins of streams, lakes, ponds, wetlands, seeps, and ditches between land and a stream and above the average high watermark, or bank full height. Plant communities along the river and lake margins are called riparian vegetation, characterized by hydrophilic plants. This includes floodplain habitat, which may be restored to properly functioning conditions. (This excludes floodplain habitat influenced by the tides, which is classified as "Estuarine Habitat" for Pisces.) -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.	□	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1521	# of acres of estuarine wetland habitat treated	Identify the total acres of habitat treated in the riparian habitat zone. The treatment area is the unit area where plant removal techniques are applied in the estuarine non-wetland zone. (Spot treatment of chemicals or other techniques should only report the area chemicals are actually applied.) To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Estuarine: Habitat that is part of a semi-enclosed coastal body of water that is subject to the ebb and flow of tides, with one or more rivers or streams flowing into it, and with a free connection to the nearshore marine zone. This includes habitat impacted by the highest high and lowest low tides of a year. Estuaries are environments whose pH, salinity, and water levels are subject to the ebb and flow of tides, and the physical and chemical properties of the river that feeds the estuary and the ocean from which it derives its salinity. This habitat includes floodplain/riparian habitat subject to inundation from the tides. -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.		number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1516	# of acres of upland wetland habitat treated	Identify the total acres of habitat treated in the upland wetland habitat zone. The treatment area is the unit area where plant removal techniques are applied in the upland wetland zone. (Spot treatment of chemicals or other techniques should only report the area chemicals are actually applied.) To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Upland: Habitat upslope of the riparian and instream habitat zone with non-hydrophilic plants, unless part of an isolated wetland, which occurs outside the hyporheic, or floodplain/riparian zone. -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.		number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1518	# of acres of riparian wetland habitat treated	Identify the total acres of habitat treated in the riparian habitat zone. The treatment area is the unit area where plant removal techniques are applied in the riparian wetland habitat zone. (Spot treatment of chemicals or other techniques should only report the area chemicals are actually applied.) To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Riparian: Transition zone between aquatic and upland habitat typically within a river's floodplain. These habitats are related to and influenced by surface or subsurface waters, especially the margins of streams, lakes, ponds, wetlands, seeps, and ditches between land and a stream and above the average high watermark, or bank full height. Plant communities along the river and lake margins are called riparian vegetation, characterized by hydrophilic plants. This includes floodplain habitat, which may be restored to properly functioning conditions. (This excludes floodplain habitat influenced by the tides, which is classified as "Estuarine Habitat" for Pisces.) -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.		number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1520	# of acres of freshwater wetland habitat treated	Identify the total acres of habitat treated in the riparian habitat zone. The treatment area is the unit area where plant removal techniques are applied in the freshwater non-tidal wetland zone. (Spot treatment of chemicals or other techniques should only report the area chemicals are actually applied.) To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Freshwater non-tidal: Habitat with freshwater flowing in a channel or watercourse, including lakes, ponds, and adjacent areas below the high water mark that is not subject to the tidal influence of the estuarine zone. -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	☐	number	0.01
				1515	# of acres of upland non-wetland habitat treated	Identify the total acres of habitat treated in the upland habitat zone. Identify the total acres of habitat treated in the riparian habitat zone. The treatment area is the unit area where plant removal techniques are applied in the upland non-wetland zone. (Spot treatment of chemicals or other techniques should only report the area chemicals are actually applied.) To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Upland: Habitat upslope of the riparian and instream habitat zone with non-hydrophilic plants, unless part of an isolated wetland, which occurs outside the hyporheic, or floodplain/riparian zone. -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1519	# of acres of freshwater non-wetland habitat treated	Identify the total acres of habitat treated in the riparian habitat zone. The treatment area is the unit area where plant removal techniques are applied in the freshwater non-tidal non-wetland zone. (Spot treatment of chemicals or other techniques should only report the area chemicals are actually applied.) To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Freshwater non-tidal: Habitat with freshwater flowing in a channel or watercourse, including lakes, ponds, and adjacent areas below the high water mark that is not subject to the tidal influence of the estuarine zone. -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.		number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1522	# of acres of estuarine non-wetland habitat treated	Identify the total acres of habitat treated in the riparian habitat zone. The treatment area is the unit area where plant removal techniques are applied in the estuarine wetland zone. (Spot treatment of chemicals or other techniques should only report the area chemicals are actually applied.) To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Estuarine: Habitat that is part of a semi-enclosed coastal body of water that is subject to the ebb and flow of tides, with one or more rivers or streams flowing into it, and with a free connection to the nearshore marine zone. This includes habitat impacted by the highest high and lowest low tides of a year. Estuaries are environments whose pH, salinity, and water levels are subject to the ebb and flow of tides, and the physical and chemical properties of the river that feeds the estuary and the ocean from which it derives its salinity. This habitat includes floodplain/riparian habitat subject to inundation from the tides. -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.		number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1406	# of riparian miles treated	To calculate the length of riparian bank habitat treated in miles, the measurement should reflect the center of channel counted for the right side, if looking downstream; or left side looking downstream; or both, if both banks are protected. This excludes the length of streambank associated with side channels or inlets. - Riparian: Transition zone between aquatic and upland habitat typically within a river's floodplain. These habitats are related to and influenced by surface or subsurface waters, especially the margins of streams, lakes, ponds, wetlands, seeps, and ditches between land and a stream and above the average high watermark, or bank full height. Plant communities along the river and lake margins are called riparian vegetation, characterized by hydrophilic plants. This includes floodplain habitat, which may be restored to properly functioning conditions. (This excludes floodplain habitat influenced by the tides, which is classified as "Estuarine Habitat" for Pisces.)	☐	number	0.01
55	Erosion and Sedimentation Control	Habitat Improvement	This is work that occurs in the riparian and upland zones, which may include the installation of water bars, gully plugs and culvert outlets, grassed waterways, grade stabilization structures, sediment catchment ponds/basins, regrading or terracing, and removal of drainage pipes and other blockages specifically to prevent erosion, sediment slumps, or landslides. This WE does not include improvements to roads or the planting of vegetation in applications other than surface soils stabilization. For that work, use WE#38, Improve Road or WE#47, Plant Vegetation, respectively.	1568	# of erosion control structures	Enter the total number of sediment basins, sediment collection ponds, sediment traps, or other structural treatments constructed or placed. (Note: This excludes treatments to roads and trails. Or plantings.)	☐	number	1.0
				1515	# of acres of upland non-wetland habitat treated	Identify the total acres of habitat treated in the upland habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Upland: Habitat upslope of the riparian and instream habitat zone with non-hydrophilic plants, unless part of an isolated wetland, which occurs outside the hyporheic, or floodplain/riparian zone. -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1517	# of acres of riparian non-wetland habitat treated	Identify the total acres of habitat treated in the riparian non-wetland habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Riparian: Transition zone between aquatic and upland habitat typically within a river's floodplain. These habitats are related to and influenced by surface or subsurface waters, especially the margins of streams, lakes, ponds, wetlands, seeps, and ditches between land and a stream and above the average high watermark, or bank full height. Plant communities along the river and lake margins are called riparian vegetation, characterized by hydrophilic plants. This includes floodplain habitat, which may be restored to properly functioning conditions. (This excludes floodplain habitat influenced by the tides, which is classified as "Estuarine Habitat" for Pisces.) -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.	☐	number	0.01
				1516	# of acres of upland wetland habitat treated	Identify the total acres of habitat treated in the upland habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Upland: Habitat upslope of the riparian and instream habitat zone with non-hydrophilic plants, unless part of an isolated wetland, which occurs outside the hyporheic, or floodplain/riparian zone. -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1522	# of acres of estuarine non-wetland habitat treated	Identify the total acres of habitat treated in the estuary habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Estuarine: Habitat that is part of a semi-enclosed coastal body of water that is subject to the ebb and flow of tides, with one or more rivers or streams flowing into it, and with a free connection to the nearshore marine zone. This includes habitat impacted by the highest high and lowest low tides of a year. Estuaries are environments whose pH, salinity, and water levels are subject to the ebb and flow of tides, and the physical and chemical properties of the river that feeds the estuary and the ocean from which it derives its salinity. This habitat includes floodplain/riparian habitat subject to inundation from the tides. -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.	☐	number	0.01
				1520	# of acres of freshwater wetland habitat treated	Identify the total acres of habitat treated in the freshwater non-tidal habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Freshwater non-tidal: Habitat with freshwater flowing in a channel or watercourse, including lakes, ponds, and adjacent areas below the high water mark that is not subject to the tidal influence of the estuarine zone. -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1521	# of acres of estuarine wetland habitat treated	Identify the total acres of habitat treated in estuarine habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Estuarine: Habitat that is part of a semi-enclosed coastal body of water that is subject to the ebb and flow of tides, with one or more rivers or streams flowing into it, and with a free connection to the nearshore marine zone. This includes habitat impacted by the highest high and lowest low tides of a year. Estuaries are environments whose pH, salinity, and water levels are subject to the ebb and flow of tides, and the physical and chemical properties of the river that feeds the estuary and the ocean from which it derives its salinity. This habitat includes floodplain/riparian habitat subject to inundation from the tides. -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1518	# of acres of riparian wetland habitat treated	Identify the total acres of habitat treated in riparian habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Riparian: Transition zone between aquatic and upland habitat typically within a river's floodplain. These habitats are related to and influenced by surface or subsurface waters, especially the margins of streams, lakes, ponds, wetlands, seeps, and ditches between land and a stream and above the average high watermark, or bank full height. Plant communities along the river and lake margins are called riparian vegetation, characterized by hydrophilic plants. This includes floodplain habitat, which may be restored to properly functioning conditions. (This excludes floodplain habitat influenced by the tides, which is classified as "Estuarine Habitat" for Pisces.) -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	☐	number	0.01
				1519	# of acres of freshwater non-wetland habitat treated	Identify the total acres of habitat treated in the freshwater non-tidal habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Freshwater non-tidal: Habitat with freshwater flowing in a channel or watercourse, including lakes, ponds, and adjacent areas below the high water mark that is not subject to the tidal influence of the estuarine zone. -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
56	Acclimate Juvenile Fish	Hatchery O&M	Includes work performed under contracts solely for acclimation of juvenile fish. If the full range of hatchery fish culture activities is performed under a contract, use WE#176, Produce Hatchery Fish. [Work Element expired 09/30/2010]	1489	Secondary purpose of production program (if any) [Supplementation, Harvest Augmentation, Research]	If there is a secondary purpose for the production different from the primary purpose, select it here. Otherwise, uncheck the metric. Secondary purpose of production includes: Supplement natural populations to help recovery, increase Harvest opportunities, or Research.		list	
				1490	Brood Year	Brood year is defined as the calendar year in which the eggs were spawned. This metric is only applicable for eggs, juveniles or fish collected for brood. If releasing adults for non-anadromous fishery or collecting kelts, the metric should be unchecked. Select a brood year from the drop-down list regardless of when eggs or juveniles were released.		list	
				1410	Purpose of production program [Supplementation, Harvest Augmentation, Research]	Drop-down box. Supplement natural populations to help recovery, increase Harvest opportunities, or Research.	☐	list	
				1459	# juveniles released from program	Number of juveniles released to the natural environment from your hatchery or acclimation site during this contract period. Enter zero if juveniles are taken to an acclimation site for release under another BPA-funded contract. A number must be entered. Zero is a valid entry.	☐	number	1.0
59	Incubate Eggs	Hatchery O&M	Includes work performed under contracts solely for incubation of fish eggs. If the full range of hatchery fish culture activities is performed under a contract, use WE#176, Produce Hatchery Fish. [Work Element expired 09/30/2010]	1456	# eggs released from program	Number of eggs released to the natural environment from your hatchery or acclimation site during this contract period. Enter zero if eggs are taken to a hatchery for rearing under another BPA-funded contract. A number must be entered. Zero is a valid entry.	☐	number	1.0
				1410	Purpose of production program [Supplementation, Harvest Augmentation, Research]	Drop-down box. Supplement natural populations to help recovery, increase Harvest opportunities, or Research.	☐	list	
				1412	# eggs received into program	# of eggs shipped to you from another facility	☐	number	1.0
				1491	# eggs transferred to a non BPA-funded facility	# of eggs transferred to another facility that is not funded by BPA, with the expectation that they will NOT be transferred back to a BPA-funded program.	☐	number	1.0
				1489	Secondary purpose of production program (if any) [Supplementation, Harvest Augmentation, Research]	If there is a secondary purpose for the production different from the primary purpose, select it here. Otherwise, uncheck the metric. Secondary purpose of production includes: Supplement natural populations to help recovery, increase Harvest opportunities, or Research.		list	

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1490	Brood Year	Brood year is defined as the calendar year in which the eggs were spawned. This metric is only applicable for eggs, juveniles or fish collected for brood. If releasing adults for non-anadromous fishery or collecting kelts, the metric should be unchecked. Select a brood year from the drop-down list regardless of when eggs or juveniles were released.		list	
63	Rear Fish	Hatchery O&M	Includes work performed under contracts solely for rearing of fish, e.g., contracts for net pen rearing of kokanee. Also describes captive rearing work. If the full range of hatchery fish culture activities is performed under a contract, use WE#176, Produce Hatchery Fish. [Work Element expired 09/30/2010]	1490	Brood Year	Brood year is defined as the calendar year in which the eggs were spawned. This metric is only applicable for eggs, juveniles or fish collected for brood. If releasing adults for non-anadromous fishery or collecting kelts, the metric should be unchecked. Select a brood year from the drop-down list regardless of when eggs or juveniles were released.		list	
				1492	# adult fish released to non-anadromous fishery	Excess broodstock or returning hatchery fish not utilized for natural spawning that are taken to a lake or other area with no outlet to anadromous streams.	☐	number	1.0
				1493	# juveniles transferred to a non BPA-funded facility	# of juveniles transferred to another facility that is not funded by BPA, with the expectation that they will NOT be transferred back to a BPA-funded program.	☐	number	1.0
				1489	Secondary purpose of production program (if any) [Supplementation, Harvest Augmentation, Research]	If there is a secondary purpose for the production different from the primary purpose, select it here. Otherwise, uncheck the metric. Secondary purpose of production includes: Supplement natural populations to help recovery, increase Harvest opportunities, or Research.		list	
				1506	# of kelts released to natural environment	# of kelts released to the natural environment with the expectation that they will spawn within the next few months	☐	number	1.0
				1507	# of kelts collected	# of kelts collected for reconditioning	☐	number	1.0
				1508	# of kelts transferred to a non BPA-funded facility	# of kelts transferred to another facility that is not funded by BPA, with the expectation that they will NOT be transferred back to a BPA funded program	☐	number	1.0
				1509	# of captively reared adults released to the natural environment	# of captively reared adults released to the natural environment with the expectation that they will spawn within the next few months	☐	number	1.0
				1510	# of captively reared adults transferred to a non BPA-funded facility	# of captively reared adults transferred to another facility that is not funded by BPA, with the expectation that they will NOT be transferred back to a BPA funded program	☐	number	1.0
				1511	# of adults transferred to a non BPA-funded facility	# of adults transferred to another facility that is not funded by BPA, with the expectation that they will NOT be transferred back to a BPA funded program	☐	number	1.0

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1512	# of adults released to the natural environment	# of adults released to the natural environment with the expectation that they will spawn within the next few months	☐	number	1.0
				1410	Purpose of production program [Supplementation, Harvest Augmentation, Research]	Drop-down box. Supplement natural populations to help recovery, increase Harvest opportunities, or Research.	☐	list	
				1458	# juveniles received into program	# of juveniles shipped to you from another facility	☐	number	1.0
				1459	# juveniles released from program	Number of juveniles released to the natural environment from your hatchery or acclimation site during this contract period. Enter zero if juveniles are taken to an acclimation site for release under another BPA-funded contract. A number must be entered. Zero is a valid entry.	☐	number	1.0
				1461	# adults into program (fish ponded)	# of adults collected elsewhere or from captive rearing for broodstock outside of this contract	☐	number	1.0
64	Spawn Fish	Hatchery O&M	Includes work performed under contracts solely for spawning of adult fish. If the full range of hatchery fish culture activities is performed under a contract, use WE#176, Produce Hatchery Fish. [Work Element expired 09/30/2010]	1410	Purpose of production program [Supplementation, Harvest Augmentation, Research]	Drop-down box. Supplement natural populations to help recovery, increase Harvest opportunities, or Research.	☐	list	
				1513	# of female fish retained as broodstock	Females retained for broodstock. Includes fish expected to die before spawn date	☐	number	1.0
				1514	# of male fish retained as broodstock	Males retained for broodstock. Includes fish expected to die before spawn date	☐	number	1.0
				1492	# adult fish released to non-anadromous fishery	Excess broodstock or returning hatchery fish not utilized for natural spawning that are taken to a lake or other area with no outlet to anadromous streams.	☐	number	1.0
				1490	Brood Year	Brood year is defined as the calendar year in which the eggs were spawned. This metric is only applicable for eggs, juveniles or fish collected for brood. If releasing adults for non-anadromous fishery or collecting kelts, the metric should be unchecked. Select a brood year from the drop-down list regardless of when eggs or juveniles were released.		list	
				1489	Secondary purpose of production program (if any) [Supplementation, Harvest Augmentation, Research]	If there is a secondary purpose for the production different from the primary purpose, select it here. Otherwise, uncheck the metric. Secondary purpose of production includes: Supplement natural populations to help recovery, increase Harvest opportunities, or Research.		list	

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
66	Trap/Collect/Hold/Transport Fish - Hatchery	Hatchery O&M	Includes work performed under contracts solely for trapping, collecting, transporting, and/or holding fish (all life history stages) for inclusion in a fish culture program. If the full range of fish culture activities is performed under a contract, use WE#176, Produce Hatchery Fish, with milestones for trapping, collecting, transporting, and/or holding fish, as appropriate.	1489	Secondary purpose of production program (if any) [Supplementation, Harvest Augmentation, Research]	If there is a secondary purpose for the production different from the primary purpose, select it here. Otherwise, uncheck the metric. Secondary purpose of production includes: Supplement natural populations to help recovery, increase Harvest opportunities, or Research.		list	
				1410	Purpose of production program [Supplementation, Harvest Augmentation, Research]	Drop-down box. Supplement natural populations to help recovery, increase Harvest opportunities, or Research.	☐	list	
				1426	# eggs (hatchery origin)	# of hatchery origin eggs shipped to a facility or release site	☐	number	1.0
				1427	# eggs (natural origin)	# of natural origin eggs shipped to a facility or release site	☐	number	1.0
				1428	# ad-clip (hatchery origin) smolts	# of hatchery origin smolts shipped to a facility or release site	☐	number	1.0
				1429	# non-clip (natural origin) smolts	# of natural origin smolts shipped to a facility or release site	☐	number	1.0
				1430	# ad-clip (hatchery origin) juveniles (presmolt)	# of hatchery origin presmolts shipped to a facility or release site	☐	number	1.0
				1431	# non-clip (natural origin) juveniles (presmolt)	# of natural origin presmolts shipped to a facility or release site	☐	number	1.0
				1432	# ad-clip (hatchery origin) adults	# of hatchery origin adults shipped to a facility or release site	☐	number	1.0
				1433	# non-clip (natural origin) adults	# of natural origin adults shipped to a facility or release site	☐	number	1.0
69	Install Fish Screen	Instream Passage Improvement	Work to install or replace a fish screen associated with a diversion or pump. Typical screen types include rotary drum, flat plate or traveling. The design of complex or large-scale screens is typically a separate work element. See WE#175, Produce Design and/or Specifications.	1434	Does the screen meet NOAA specs?	Self-Explanatory	☐	list	
				1436	Quantity of water protected by screening in acre-feet/year	Determined by what is stated in the water right or calculated based on flow rate.	☐	number	0.1

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
82	Install Well	Water Conservation and Irrigation Practices	Install well to enable groundwater to be used for irrigation as an alternative to instream flow. Wells installed to provide water for livestock should be covered under WE#34, Develop Alternative Water Source. Wells installed to provide hatchery or acclimation water supplies should be covered under WE#171, Build Artificial Production Facility. If a well is being installed to provide water instream, also use WE#154, Develop and Negotiate Water Right Transaction and WE#164, Acquire Water Instream.	1438	# of miles of primary stream reach improvement	This work is designed to eliminate an irrigation diversion or to provide irrigation efficiencies. The # of miles refers to the distance (0.1 miles) from the point of diversion being addressed to the next downstream diversion or confluence with the next major order stream, whichever comes first.	☐	number	0.1
				1439	# of miles of total stream reach improvement	This work is designed to eliminate an irrigation diversion or to provide irrigation efficiencies. The # of miles refers to the distance (0.1 miles) from the point of diversion being addressed to the confluence of the next major order stream. The term "total" includes both primary and secondary stream reaches.	☐	number	0.01
				1440	Amount of unprotected water flow returned to the stream by conservation in acre-feet/year	This is the seasonal volume of water left instream due to irrigation efficiencies; this water is "unprotected" until an official water transaction is recorded.	☐	number	0.1
				1451	Amount of unprotected water flow returned to the stream by conservation in cubic-feet per second (cfs)	This is the rate of flow of water left instream due to irrigation efficiencies or the removal of a diversion; this water is "unprotected" unless and until an official water transaction is recorded.	☐	number	0.1
84	Remove/Install Diversion	Instream Passage Improvement	Work that removes, replaces, or avoids creating a fish passage barrier associated with a stream diversion, including push-up dams. May be part of a diversion consolidation effort that reduces the number of diversion sites. Includes installation of alternative ways to divert stream flow without creating passage barriers caused by traditional diversion structures. Examples include, but are not limited to, infiltration galleries, instream diversion pumps, and lay-flat stanchions.	1480	# of screens addressed	This metric applies to screens associated with the removal or replacement of a diversion.	☐	number	1.0
				1563	# of barriers in the freshwater zone	The count of barriers addressed is the total number of fish passage barriers removed at a specified worksite. This is not the number of individual fish passage structure types but the structural blockages as a whole that may be quantified by one Latitude and Longitude and is used to calculate the distance upstream to the next barrier. A barrier in PISCES will be defined as passage barriers created from increased sediment from mine tailings that result in a passage impairment from subsurface flows.	☐	number	1.0

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1441	# of miles of habitat accessed to the next upstream barrier(s) or likely limit of habitable range	The length of stream made accessible to the next upstream barrier to fish passage in miles. To calculate miles, divide the total length of feet by 5,280 ft/per mile. Note: If this metric is captured for this barrier under another work element, put "0" here.	☐	number	0.01
				1564	# of barriers in the estuarine zone	The count of barriers addressed is the total number of fish passage barriers removed at a specified worksite. This is not the number of individual fish passage structure types but the structural blockages as a whole that may be quantified by one Latitude and Longitude and is used to calculate the distance upstream to the next barrier. A barrier in PISCES will be defined as passage barriers created from increased sediment from mine tailings that result in a passage impairment from subsurface flows.	☐	number	1.0
85	Remove/Breach Fish Passage Barrier	Instream Passage Improvement	Work that facilitates fish passage over a natural (e.g., beaver) or human-made barrier by breaching or removal. This includes dams, weirs, fish ladders, tidegates, culverts, bridges, and road crossings. If the dam is part of a diversion, use WE#84, Remove/Install Diversion. If installing a fish passage structure at the same location, use WE#184, Install Fish Passage Structure, and have removal of the passage barrier as a milestone under that work element.	1564	# of barriers in the estuarine zone	The count of barriers addressed is the total number of fish passage barriers removed at a specified worksite. This is not the number of individual fish passage structure types but the structural blockages as a whole that may be quantified by one Latitude and Longitude and is used to calculate the distance upstream to the next barrier. A barrier in PISCES will be defined as passage barriers created from increased sediment from mine tailings that result in a passage impairment from subsurface flows.	☐	number	1.0
				1441	# of miles of habitat accessed to the next upstream barrier(s) or likely limit of habitable range	The length of stream made accessible to the next upstream barrier to fish passage in miles. To calculate miles, divide the total length of feet by 5,280 ft/per mile. Note: If this metric is captured for this barrier under another work element, put "0" here.	☐	number	0.01
				1563	# of barriers in the freshwater zone	The count of barriers addressed is the total number of fish passage barriers removed at a specified worksite. This is not the number of individual fish passage structure types but the structural blockages as a whole that may be quantified by one Latitude and Longitude and is used to calculate the distance upstream to the next barrier. A barrier in PISCES will be defined as passage barriers created from increased sediment from mine tailings that result in a passage impairment from subsurface flows.	☐	number	1.0
92	Lease Land	Land Acquisition / Conservation Easement	Includes riparian, grazing, and multiple-use leases, typically for multiple years.	1555	# of miles protected in a riparian wetland area	Add length on both sides of stream when both sides are protected. Add one side when one side is protected. Normally, riparian habitat protection is intended for the benefit of fish.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1556	# of miles protected in a riparian non-wetland area	Add length on both sides of stream when both sides are protected. Add one side when one side is protected. Normally, riparian habitat protection is intended for the benefit of fish.	☐	number	0.01
				1452	Amount of water secured in acre-feet/year	This is the total volume of water being addressed by the acquisition over the course of one irrigation season. The term acquisition refers to either the lease or the purchase of water.	☐	number	0.1
				1453	Flow of water returned to the stream as prescribed in the water acquisition in cubic-feet per second (cfs)	Provide the average volume rate of flow expected by the acquisition. The term "acquisition" refers to either the lease or the purchase of water.	☐	number	0.01
				1442	Type of lease [New Lease, Renewed Lease]	Self-Explanatory	☐	list	
				1443	Start date of lease	Self-Explanatory	☐	date	
				1444	End date of lease	Self-Explanatory	☐	date	
				1384	Start longitude of protected stream reach	This metric only applies to acquisitions (by lease or purchase) in riparian areas. Must be entered in decimal degrees. For help converting from degrees, minutes, seconds go to http://www.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html.		long	0.000001
				1385	End longitude of protected stream reach	This metric only applies to acquisitions (by lease or purchase) in riparian areas. Must be entered in decimal degrees. For help converting from degrees, minutes, seconds go to http://www.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html.		long	0.000001
				1382	Start latitude of protected stream reach	This metric only applies to acquisitions (by lease or purchase) in riparian areas. Must be entered in decimal degrees. For help converting from degrees, minutes, seconds go to http://www.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html.		lat	0.000001
				1383	End latitude of protected stream reach	This metric only applies to acquisitions (by lease or purchase) in riparian areas. Must be entered in decimal degrees. For help converting from degrees, minutes, seconds go to http://www.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html.		lat	0.000001

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1527	# of acres of riparian wetland habitat protected	Identify the total acres of habitat protected in the riparian habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the protected habitat zone times the average width of the protected habitat zone in feet / divided by 43,560 sq. ft./acre. (Note the total area protected for this WE should roughly equal the total acres identified in the lease.) -Riparian: Transition zone between aquatic and upland habitat typically within a river's floodplain. These habitats are related to and influenced by surface or subsurface waters, especially the margins of streams, lakes, ponds, wetlands, seeps, and ditches between land and a stream and above the average high watermark, or bank full height. Plant communities along the river and lake margins are called riparian vegetation, characterized by hydrophilic plants. This includes floodplain habitat, which may be restored to properly functioning conditions. (This excludes floodplain habitat influenced by the tides, which is classified as "Estuarine Habitat" for Pisces.) -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.		number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1530	# of acres of estuarine wetland habitat protected	Identify the total acres of habitat protected in the estuarine habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the protected habitat zone times the average width of the protected habitat zone in feet / divided by 43,560 sq. ft./acre. (Note the total area protected for this WE should roughly equal the total acres identified in the lease.) -Estuarine: Habitat that is part of a semi-enclosed coastal body of water that is subject to the ebb and flow of tides, with one or more rivers or streams flowing into it, and with a free connection to the nearshore marine zone. This includes habitat impacted by the highest high and lowest low tides of a year. Estuaries are environments whose pH, salinity, and water levels are subject to the ebb and flow of tides, and the physical and chemical properties of the river that feeds the estuary and the ocean from which it derives its salinity. This habitat includes floodplain/riparian habitat subject to inundation from the tides. -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.		number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1529	# of acres of freshwater wetland habitat protected	Identify the total acres of habitat protected in the freshwater non-tidal habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the protected habitat zone times the average width of the protected habitat zone in feet / divided by 43,560 sq. ft./acre. (Note the total area protected for this WE should roughly equal the total acres identified in the lease.) -Freshwater non-tidal: Habitat with freshwater flowing in a channel or watercourse, including lakes, ponds, and adjacent areas below the high water mark that is not subject to the tidal influence of the estuarine zone. -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	☐	number	0.01
				1525	# of acres of upland wetland habitat protected	Identify the total acres of habitat protected in the upland habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the protected habitat zone times the average width of the protected habitat zone in feet / divided by 43,560 sq. ft./acre. (Note the total area protected for this WE should roughly equal the total acres identified in the lease.) -Upland: Habitat upslope of the riparian and instream habitat zone with non-hydrophilic plants, unless part of an isolated wetland, which occurs outside the hyporheic, or floodplain/riparian zone. -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1526	# of acres of riparian non-wetland habitat protected	Identify the total acres of habitat protected in the riparian habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the protected habitat zone times the average width of the protected habitat zone in feet / divided by 43,560 sq. ft./acre. (Note the total area protected for this WE should roughly equal the total acres identified in the lease.) -Riparian: Transition zone between aquatic and upland habitat typically within a river's floodplain. These habitats are related to and influenced by surface or subsurface waters, especially the margins of streams, lakes, ponds, wetlands, seeps, and ditches between land and a stream and above the average high watermark, or bank full height. Plant communities along the river and lake margins are called riparian vegetation, characterized by hydrophilic plants. This includes floodplain habitat, which may be restored to properly functioning conditions. (This excludes floodplain habitat influenced by the tides, which is classified as "Estuarine Habitat" for Pisces.) -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1531	# of acres of estuarine non-wetland habitat protected	Identify the total acres of habitat protected in the estuarine habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the protected habitat zone times the average width of the protected habitat zone in feet / divided by 43,560 sq. ft./acre. (Note the total area protected for this WE should roughly equal the total acres identified in the lease.) -Estuarine: Habitat that is part of a semi-enclosed coastal body of water that is subject to the ebb and flow of tides, with one or more rivers or streams flowing into it, and with a free connection to the nearshore marine zone. This includes habitat impacted by the highest high and lowest low tides of a year. Estuaries are environments whose pH, salinity, and water levels are subject to the ebb and flow of tides, and the physical and chemical properties of the river that feeds the estuary and the ocean from which it derives its salinity. This habitat includes floodplain/riparian habitat subject to inundation from the tides. -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.		number	0.01
				1528	# of acres of freshwater non-wetland habitat protected	Identify the total acres of habitat protected in the freshwater non-tidal habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the protected habitat zone times the average width of the protected habitat zone in feet / divided by 43,560 sq. ft./acre. (Note the total area protected for this WE should roughly equal the total acres identified in the lease.) -Freshwater non-tidal: Habitat with freshwater flowing in a channel or watercourse, including lakes, ponds, and adjacent areas below the high water mark that is not subject to the tidal influence of the estuarine zone. -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.		number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1524	# of acres of upland non-wetland habitat protected	Identify the total acres of habitat protected in the upland habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the protected habitat zone times the average width of the protected habitat zone in feet / divided by 43,560 sq. ft./acre.) (Note the total area protected for this WE should roughly equal the total acres identified in the lease.) -Upland: Habitat upslope of the riparian and instream habitat zone with non-hydrophilic plants, unless part of an isolated wetland, which occurs outside the hyporheic, or floodplain/riparian zone. -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.	☐	number	0.01
99	Outreach and Education	Planning and Coordination	Covers work to educate or communicate with the public. Includes conducting classes, seminars, workshops, training, symposia, and conferences. Excludes work to coordinate with landowners or other direct participants in on-the-ground conservation (include this type of coordination as part of the associated implementation WE), or work to identify and select new projects (WE#114, Identify and Select Projects).	1447	# of students reached	This is the total number of "class" participants for any given event; it does not include members of the "presenting" organization.	☐	number	1.0
				1448	# of general public reached	This is the total number of "class" participants for any given event; it does not include members of the "presenting" organization.	☐	number	1.0
				1449	# of teachers reached	This is the total number of "class" participants for any given event; it does not include members of the "presenting" organization.	☐	number	1.0

Metric Guidance by Work Element

132	Produce (Annual) Progress Report	Reporting	This work element covers written reports of results that typically are submitted to BPA at the end of a contract period for dissemination to the public. Previously called "Annual" reports, these progress reports may cover less than a year or multiple years. They are not required or appropriate for all contracts in all years, but are particularly important when useful results are not captured by standard Pisces metrics or status reports. Progress Reports come in two types. "Technical" reports are used for contracts that involve WE#156, Develop RM&E Methods and Designs, WE#162, Analyze/Interpret Data, and/or WE#157, Collect/Generate/Validate Field and Lab Data when it is important also to report the data collection methods. Technical progress reports often use a scientific format, especially when it is important to describe the methods that produced the results. An alternative, less common format could follow the flow of activities described in the contract's statement of work (SOW-based format). Once uploaded to Pisces, Technical reports will be published as Department of Energy Technical Reports, per standard practice. "Non-technical" progress reports also will be uploaded to Pisces, which will provide public access, but will not be "published" as a DoE Technical Report. Non-technical reports may include photos, summaries of data, and lessons learned. They must document completion of the contract's work and capture important information that would not be readily available through other means (e.g., Pisces metrics and status reports). Report findings and lessons learned for data analysis or issues with project implementation that may help management of projects for the F&W program. Do not re-state formerly collected and reported data; nor should you report preliminary findings if the certainty or confidence in the statement may be counter to final results. If in an earlier phase of a longer term study, you find conclusive results, be sure to include these.

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
148	Install Flow Measuring Device	Water Conservation and Irrigation Practices	Includes activities for installing and/or moving electrical flow gauges or other complex flow measuring devices, such as flow gauges using telemetry to transmit data. Devices may be fixed or portable, and tend to be left in place for a full season or longer. Actual measurement would occur under WE#157, Collect/Generate/Validate Field and Lab Data.	1450	Are the measuring devices portable or fixed?	Self-Explanatory	☐	list	
				1502	Type of metering device primarily used	Metering Device choices: 1) Electronic, Data Transmitted - a gauge that records and transmits by telemetry to another location, 2) Electronic, Data Read On-Site - a gauge that is read on-site, or 3) Other - Under "Deliverable Specification" please describe device and explain why this device would be more appropriate.	☐	list	
149	Install Pipeline	Water Conservation and Irrigation Practices	Includes activities related to installing a pipeline . This work element is only for work designed to provide irrigation efficiencies which result in increased instream flow. Other options should have already been considered to accomplish this purpose, such as water transactions or obtaining cost-share for this work element and subsequently transferring conserved water instream. To cover initial work to put conserved water instream, including coordinating with the Columbia Basin Water Transactions Program, also use WE#154, Develop and Negotiate Water Right Transaction and WE#164, Acquire Water Instream. If the pipeline is part of a larger irrigation consolidation project that involves eliminating a diversion, then you must also use WE#84, Remove/Install Diversion. WE#149, Install Pipeline is often used in conjunction with WE#150, Install Sprinkler. In these cases, be careful not to double-count metrics. Avoid this by entering metrics only for WE#149, Install Pipeline, not WE#150, Install Sprinkler. If the purpose of the pipeline is to provide water to livestock, use WE#34, Develop Alternative Water Source instead.	1438	# of miles of primary stream reach improvement	This work is designed to eliminate an irrigation diversion or to provide irrigation efficiencies. The # of miles refers to the distance (0.1 miles) from the point of diversion being addressed to the next downstream diversion or confluence with the next major order stream, whichever comes first.	☐	number	0.1

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1439	# of miles of total stream reach improvement	This work is designed to eliminate an irrigation diversion or to provide irrigation efficiencies. The # of miles refers to the distance (0.1 miles) from the point of diversion being addressed to the confluence of the next major order stream. The term "total" includes both primary and secondary stream reaches.	☐	number	0.01
				1440	Amount of unprotected water flow returned to the stream by conservation in acre-feet/year	This is the seasonal volume of water left instream due to irrigation efficiencies; this water is "unprotected" until an official water transaction is recorded.	☐	number	0.1
				1451	Amount of unprotected water flow returned to the stream by conservation in cubic-feet per second (cfs)	This is the rate of flow of water left instream due to irrigation efficiencies or the removal of a diversion; this water is "unprotected" unless and until an official water transaction is recorded.	☐	number	0.1
150	Install Sprinkler	Water Conservation and Irrigation Practices	Includes activities related to installing a sprinkler system. This work element is only for work designed to provide irrigation efficiencies which result in increased instream flow. Thus, other options should have already been considered to accomplish this purpose, such as water transactions or obtaining cost-share for this work element and subsequently transferring conserved water instream. To cover initial work to put conserved water instream, including coordinating with the Columbia Basin Water Transactions Program, also use WE#154, Develop and Negotiate Water Right Transaction and WE#164, Acquire Water Instream.	1440	Amount of unprotected water flow returned to the stream by conservation in acre-feet/year	This is the seasonal volume of water left instream due to irrigation efficiencies; this water is "unprotected" until an official water transaction is recorded.	☐	number	0.1
				1438	# of miles of primary stream reach improvement	This work is designed to eliminate an irrigation diversion or to provide irrigation efficiencies. The # of miles refers to the distance (0.1 miles) from the point of diversion being addressed to the next downstream diversion or confluence with the next major order stream, whichever comes first.	☐	number	0.1
				1451	Amount of unprotected water flow returned to the stream by conservation in cubic-feet per second (cfs)	This is the rate of flow of water left instream due to irrigation efficiencies or the removal of a diversion; this water is "unprotected" unless and until an official water transaction is recorded.	☐	number	0.1
				1439	# of miles of total stream reach improvement	This work is designed to eliminate an irrigation diversion or to provide irrigation efficiencies. The # of miles refers to the distance (0.1 miles) from the point of diversion being addressed to the confluence of the next major order stream. The term "total" includes both primary and secondary stream reaches.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
151	Line Diversion Ditch	Water Conservation and Irrigation Practices	Includes activities related to lining a ditch. This work element is only for work designed to provide irrigation efficiencies which result in increased instream flow. Thus, other options should have already been considered to accomplish this purpose, such as water transactions or obtaining cost-share for this work element and subsequently transferring conserved water instream. To cover initial work to put conserved water instream, including coordinating with the Columbia Basin Water Transactions Program, also use WE#154, Develop and Negotiate Water Right Transaction and WE#164, Acquire Water Instream.	1440	Amount of unprotected water flow returned to the stream by conservation in acre-feet/year	This is the seasonal volume of water left instream due to irrigation efficiencies; this water is "unprotected" until an official water transaction is recorded.	☐	number	0.1
				1438	# of miles of primary stream reach improvement	This work is designed to eliminate an irrigation diversion or to provide irrigation efficiencies. The # of miles refers to the distance (0.1 miles) from the point of diversion being addressed to the next downstream diversion or confluence with the next major order stream, whichever comes first.	☐	number	0.1
				1439	# of miles of total stream reach improvement	This work is designed to eliminate an irrigation diversion or to provide irrigation efficiencies. The # of miles refers to the distance (0.1 miles) from the point of diversion being addressed to the confluence of the next major order stream. The term "total" includes both primary and secondary stream reaches.	☐	number	0.01
				1451	Amount of unprotected water flow returned to the stream by conservation in cubic-feet per second (cfs)	This is the rate of flow of water left instream due to irrigation efficiencies or the removal of a diversion; this water is "unprotected" unless and until an official water transaction is recorded.	☐	number	0.1

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
157	Collect/Generate/Validate Field and Lab Data	RM & E and Data Management	Work to collect, create, generate, or capture source data as part of a data creation effort; collecting new empirical data; entering data into a computer spreadsheet/database; developing automated data capture programs/routines and related hardware/software (e.g., PDAs, data loggers, thermographs); preparing metadata; and quality assurance/quality control processes. This includes any preparations for collecting data if not covered by another work element. This work element covers the collection of field samples/specimens (e.g., tissue, macroinvertebrate, or water quality samples), remote sensing data and the subsequent laboratory analyses of field samples/specimens and generation of data summaries. If work is to analyze the data or work to derive indicators then use WE#162, Analyze/Interpret Data.	1478	Secondary R, M, and E Type [Status and Trend Monitoring, Action Effectiveness Research, Uncertainties Research, Project Implementation/ Compliance Monitoring]	Secondary Research, Monitoring, and Evaluation Type refers to a secondary goal or indirect benefit of the work. This information helps us classify R, M, and E work. For definitions of each type, see the Guidance under the "Primary R, M, and E Type" metric.		list	
				1472	Primary R, M, and E Type [Status and Trend Monitoring, Action Effectiveness Research, Uncertainties Research, Project Implementation/ Compliance Monitoring]	Primary Research, Monitoring, and Evaluation Type refers to the primary goal of the work. If there is a secondary type, please enter it under the metric "Secondary R, M, and E Type". This information helps us classify R, M, and E work. Definitions of each type follow. Status and Trend Monitoring is short for Fish/Wildlife Population and Environmental Status and Trend Monitoring which is defined as census or statistically designed monitoring of fish or wildlife population and/or environmental conditions (i.e. watershed conditions) to assess the current status or change (trend) over time. This is sometimes referred to as an observational study (ISRP, 2005). These monitoring data may also be used to correlate fish performance with environmental conditions. * Ecosystem/Landscape level, broad-scale, periodic monitoring (referred to as Tier 1 Monitoring) * Geographically localized, frequent monitoring (referred to as Tier 2 Monitoring) Action Effectiveness Research refers to research to determine the effects of an action or suite of actions on fish survival, productivity and/or habitat conditions (referred to as Tier 3 monitoring). This is a manipulative experiment that statistically assesses the effect of a treatment (action) condition relative to a control or reference condition. Action effectiveness	□	list	

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research can be performed for a localized effect (project or stream reach level effect) or for a watershed level effect (intensively monitored effect). Localized (project level) effects most commonly identify changes in habitat conditions associated with the action, while fish or biological responses may require a watershed level (intensively monitored approach) to capture a broader area in which a biological response is expressed.

Uncertainties Research refers to research to resolve scientific uncertainties regarding the relationships between fish or wildlife health, population performance (abundance, survival, productivity, distribution, diversity), habitat conditions, life history and/or genetic conditions (e.g., the existence and causes of delayed mortality, hatchery spawner reproductive success relative to wild populations, etc.). This is a manipulative experiment where variables are manipulated to infer or demonstrate cause and effect relationships using statistical-designed hypothesis testing. Uncertainties research does not include experimental research and monitoring specifically targeting the effect of a mitigation or restoration action (this is Action Effectiveness Research). It also does not include monitoring (observational studies) of fish or habitat conditions with inferences from statistical correlation assessments (this is Status and Trend Monitoring).

Project Implementation/Compliance Monitoring refers to monitoring the execution and outcomes of projects. This type of monitoring does not require environmental response data directly linking restoration actions to physical, chemical, or biological responses.
* Project Implementation monitoring determines whether projects were carried out as planned, through documentation of the type and location of management action, and whether the action was implemented properly or complies with established standards. This is generally carried out as an administrative review and does not require any parameter measurements beyond those specified by the project design requirements. It is usually a low-cost monitoring activity that should be included for all mitigation activities.
* Project Compliance monitoring determines whether specified project criteria are being met, through a post-project auditing of project performance. This type of monitoring would typically not be carried out by the project sponsor, and may require the development of independent, compliance monitoring projects. A limited, statistical-designed sample of projects could

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		be monitored annually for compliance.		
1464	Primary R, M, and E Focal Area [Population Status, Hydrosystem, Tributary Habitat, Estuary/Ocean, Harvest, Hatchery, Predation, Systemwide]	Population Status – Monitoring of Fish or Wildlife population-specific abundance, productivity, spatial distribution, or genetic diversity. Hydrosystem – RM&E occurring within and/or applicable to management questions or critical uncertainties associated with the mainstem Columbia River hydrosystem and associated habitat. Tributary Habitat – RM&E occurring within and/or applicable to management questions or critical uncertainties associated with the Columbia basin tributary habitat. Estuary/Ocean – RM&E occurring within and/or applicable to management questions or critical uncertainties associated with the Columbia River estuary habitat or the ocean. Harvest – RM&E associated with harvest management questions or critical uncertainties. Hatchery - RM&E associated with hatchery management questions or critical uncertainties. Predation – RM&E associated with predation management questions or critical uncertainties. Systemwide - RM&E associated with broad, ecosystem level management questions or critical uncertainties.		list
1495	Secondary R, M, and E Focal Area [Population Status, Hydrosystem, Tributary Habitat, Estuary/Ocean, Harvest, Hatchery, Predation, Systemwide]	If there is a secondary focal area different from the primary focal area, select it here. Otherwise, uncheck the metric. Population Status – Monitoring of Fish or Wildlife population-specific abundance, productivity, spatial distribution, or genetic diversity. Hydrosystem – RM&E occurring within and/or applicable to management questions or critical uncertainties associated with the mainstem Columbia River hydrosystem and associated habitat. Tributary Habitat – RM&E occurring within and/or applicable to management questions or critical uncertainties associated with the Columbia basin tributary habitat. Estuary/Ocean – RM&E occurring within and/or applicable to management questions or critical uncertainties associated with the Columbia River estuary habitat or the ocean. Harvest – RM&E associated with harvest management questions or critical uncertainties. Hatchery - RM&E associated with hatchery management questions or critical uncertainties. Predation – RM&E associated with predation management questions or critical uncertainties. Systemwide - RM&E associated with broad, ecosystem level management questions or critical uncertainties.		list

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
158	Mark/Tag Animals	RM & E and Data Management	Covers activities integral to placing marks/tags on animals. Recognizing that this is a subset of data collection/generation, it has been separated to facilitate tracking the sometimes-significant costs associated with animal marking/tagging. This work element includes capture and bio-sampling activities when they support a primary purpose of placing the mark/tag. It also includes monitoring the effects of the mark/tag on the animals (e.g., tagging mortality), the mark/tag retention/detectability, other QA/QC for the mark/tag data, and creation of associated metadata. It does not include capture activities when the primary purpose is to collect biological data and does not include subsequent mark/tag observations and analysis.	1495	Secondary R, M, and E Focal Area [Population Status, Hydrosystem, Tributary Habitat, Estuary/Ocean, Harvest, Hatchery, Predation, Systemwide]	If there is a secondary focal area different from the primary focal area, select it here. Otherwise, uncheck the metric. Population Status – Monitoring of Fish or Wildlife population-specific abundance, productivity, spatial distribution, or genetic diversity. Hydrosystem – RM&E occurring within and/or applicable to management questions or critical uncertainties associated with the mainstem Columbia River hydrosystem and associated habitat. Tributary Habitat – RM&E occurring within and/or applicable to management questions or critical uncertainties associated with the Columbia basin tributary habitat. Estuary/Ocean – RM&E occurring within and/or applicable to management questions or critical uncertainties associated with the Columbia River estuary habitat or the ocean. Harvest – RM&E associated with harvest management questions or critical uncertainties. Hatchery - RM&E associated with hatchery management questions or critical uncertainties. Predation – RM&E associated with predation management questions or critical uncertainties. Systemwide - RM&E associated with broad, ecosystem level management questions or critical uncertainties.		list	

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1464	Primary R, M, and E Focal Area [Population Status, Hydrosystem, Tributary Habitat, Estuary/Ocean, Harvest, Hatchery, Predation, Systemwide]	Population Status – Monitoring of Fish or Wildlife population-specific abundance, productivity, spatial distribution, or genetic diversity. Hydrosystem – RM&E occurring within and/or applicable to management questions or critical uncertainties associated with the mainstem Columbia River hydrosystem and associated habitat. Tributary Habitat – RM&E occurring within and/or applicable to management questions or critical uncertainties associated with the Columbia basin tributary habitat. Estuary/Ocean – RM&E occurring within and/or applicable to management questions or critical uncertainties associated with the Columbia River estuary habitat or the ocean. Harvest – RM&E associated with harvest management questions or critical uncertainties. Hatchery - RM&E associated with hatchery management questions or critical uncertainties. Predation – RM&E associated with predation management questions or critical uncertainties. Systemwide - RM&E associated with broad, ecosystem level management questions or critical uncertainties.	☐	list	
				1478	Secondary R, M, and E Type [Status and Trend Monitoring, Action Effectiveness Research, Uncertainties Research, Project Implementation/ Compliance Monitoring]	Secondary Research, Monitoring, and Evaluation Type refers to a secondary goal or indirect benefit of the work. This information helps us classify R, M, and E work. For definitions of each type, see the Guidance under the "Primary R, M, and E Type" metric.		list	
				1472	Primary R, M, and E Type [Status and Trend Monitoring, Action Effectiveness Research, Uncertainties Research, Project Implementation/ Compliance Monitoring]	Primary Research, Monitoring, and Evaluation Type refers to the primary goal of the work. If there is a secondary type, please enter it under the metric "Secondary R, M, and E Type". This information helps us classify R, M, and E work. Definitions of each type follow. Status and Trend Monitoring is short for Fish/Wildlife Population and Environmental Status and Trend Monitoring which is defined as census or statistically designed monitoring of fish or wildlife population and/or environmental conditions (i.e. watershed conditions) to assess the current status or change (trend) over time. This is sometimes referred to as an observational study (ISRP, 2005). These monitoring data may also be used to correlate fish performance with environmental conditions. * Ecosystem/Landscape level, broad-scale, periodic monitoring (referred to as Tier 1 Monitoring) * Geographically localized, frequent monitoring (referred to as Tier 2 Monitoring)	☐	list	

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Action Effectiveness Research refers to research to determine the effects of an action or suite of actions on fish survival, productivity and/or habitat conditions (referred to as Tier 3 monitoring). This is a manipulative experiment that statistically assesses the effect of a treatment (action) condition relative to a control or reference condition. Action effectiveness research can be performed for a localized effect (project or stream reach level effect) or for a watershed level effect (intensively monitored effect). Localized (project level) effects most commonly identify changes in habitat conditions associated with the action, while fish or biological responses may require a watershed level (intensively monitored approach) to capture a broader area in which a biological response is expressed.

Uncertainties Research refers to research to resolve scientific uncertainties regarding the relationships between fish or wildlife health, population performance (abundance, survival, productivity, distribution, diversity), habitat conditions, life history and/or genetic conditions (e.g., the existence and causes of delayed mortality, hatchery spawner reproductive success relative to wild populations, etc.). This is a manipulative experiment where variables are manipulated to infer or demonstrate cause and effect relationships using statistical-designed hypothesis testing. Uncertainties research does not include experimental research and monitoring specifically targeting the effect of a mitigation or restoration action (this is Action Effectiveness Research). It also does not include monitoring (observational studies) of fish or habitat conditions with inferences from statistical correlation assessments (this is Status and Trend Monitoring).

Project Implementation/Compliance Monitoring refers to monitoring the execution and outcomes of projects. This type of monitoring does not require environmental response data directly linking restoration actions to physical, chemical, or biological responses.
* Project Implementation monitoring determines whether projects were carried out as planned, through documentation of the type and location of management action, and whether the action was implemented properly or complies with established standards. This is generally carried out as an administrative review and does not require any parameter measurements beyond those specified by the project design requirements. It is usually a low-cost monitoring activity that should be included for

Metric Guidance by Work Element

						all mitigation activities. * Project Compliance monitoring determines whether specified project criteria are being met, through a post-project auditing of project performance. This type of monitoring would typically not be carried out by the project sponsor, and may require the development of independent, compliance monitoring projects. A limited, statistical-designed sample of projects could be monitored annually for compliance.		
162	Analyze/Interpret Data	RM & E and Data Management	Data analysis that goes beyond generation of data summaries from data collected or generated in the field or through remote sensing. These activities apply analytical tools to derive variables, or indicators to inform management decisions. Often involving tests of statistical significance, this work element also may include modeling, indices, and synthesis. Typically culminates in resource management recommendations presented in a report of research/evaluation findings or analyses presented as formal publications. Also use the "Reporting" WE category if the project generates reports or publications from the analyzed data.	1472	Primary R, M, and E Type [Status and Trend Monitoring, Action Effectiveness Research, Uncertainties Research, Project Implementation/ Compliance Monitoring]	Primary Research, Monitoring, and Evaluation Type refers to the primary goal of the work. If there is a secondary type, please enter it under the metric "Secondary R, M, and E Type". This information helps us classify R, M, and E work. Definitions of each type follow. Status and Trend Monitoring is short for Fish/Wildlife Population and Environmental Status and Trend Monitoring which is defined as census or statistically designed monitoring of fish or wildlife population and/or environmental conditions (i.e. watershed conditions) to assess the current status or change (trend) over time. This is sometimes referred to as an observational study (ISRP, 2005). These monitoring data may also be used to correlate fish performance with environmental conditions. * Ecosystem/Landscape level, broad-scale, periodic monitoring (referred to as Tier 1 Monitoring) * Geographically localized, frequent monitoring (referred to as Tier 2 Monitoring) Action Effectiveness Research refers to research to determine the effects of an action or suite of actions on fish survival, productivity and/or habitat conditions (referred to as Tier 3 monitoring). This is a manipulative experiment that statistically assesses the effect of a treatment (action) condition relative to a control or reference condition. Action effectiveness research can be performed for a localized effect (project or stream reach level effect) or for a watershed level effect (intensively monitored effect). Localized (project level) effects most commonly identify changes in habitat conditions associated with the action, while fish or biological responses may require a watershed level (intensively monitored approach) to capture a broader area in which a biological response is expressed. Uncertainties Research refers to research to resolve scientific uncertainties regarding the relationships between fish or wildlife health, population performance (abundance, survival, productivity, distribution, diversity), habitat conditions, life history and/or genetic		list

Metric Guidance by Work Element

		conditions (e.g., the existence and causes of delayed mortality, hatchery spawner reproductive success relative to wild populations, etc.). This is a manipulative experiment where variables are manipulated to infer or demonstrate cause and effect relationships using statistical-designed hypothesis testing. Uncertainties research does not include experimental research and monitoring specifically targeting the effect of a mitigation or restoration action (this is Action Effectiveness Research). It also does not include monitoring (observational studies) of fish or habitat conditions with inferences from statistical correlation assessments (this is Status and Trend Monitoring). Project Implementation/Compliance Monitoring refers to monitoring the execution and outcomes of projects. This type of monitoring does not require environmental response data directly linking restoration actions to physical, chemical, or biological responses. * Project Implementation monitoring determines whether projects were carried out as planned, through documentation of the type and location of management action, and whether the action was implemented properly or complies with established standards. This is generally carried out as an administrative review and does not require any parameter measurements beyond those specified by the project design requirements. It is usually a low-cost monitoring activity that should be included for all mitigation activities. * Project Compliance monitoring determines whether specified project criteria are being met, through a post-project auditing of project performance. This type of monitoring would typically not be carried out by the project sponsor, and may require the development of independent, compliance monitoring projects. A limited, statistical-designed sample of projects could be monitored annually for compliance.	
1478	Secondary R, M, and E Type [Status and Trend Monitoring, Action Effectiveness Research, Uncertainties Research, Project Implementation/ Compliance Monitoring]	Secondary Research, Monitoring, and Evaluation Type refers to a secondary goal or indirect benefit of the work. This information helps us classify R, M, and E work. For definitions of each type, see the Guidance under the "Primary R, M, and E Type" metric.	list

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1464	Primary R, M, and E Focal Area [Population Status, Hydrosystem, Tributary Habitat, Estuary/Ocean, Harvest, Hatchery, Predation, Systemwide]	Population Status – Monitoring of Fish or Wildlife population-specific abundance, productivity, spatial distribution, or genetic diversity. Hydrosystem – RM&E occurring within and/or applicable to management questions or critical uncertainties associated with the mainstem Columbia River hydrosystem and associated habitat. Tributary Habitat – RM&E occurring within and/or applicable to management questions or critical uncertainties associated with the Columbia basin tributary habitat. Estuary/Ocean – RM&E occurring within and/or applicable to management questions or critical uncertainties associated with the Columbia River estuary habitat or the ocean. Harvest – RM&E associated with harvest management questions or critical uncertainties. Hatchery - RM&E associated with hatchery management questions or critical uncertainties. Predation – RM&E associated with predation management questions or critical uncertainties. Systemwide - RM&E associated with broad, ecosystem level management questions or critical uncertainties.	☐	list	

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1495	Secondary R, M, and E Focal Area [Population Status, Hydrosystem, Tributary Habitat, Estuary/Ocean, Harvest, Hatchery, Predation, Systemwide]	If there is a secondary focal area different from the primary focal area, select it here. Otherwise, uncheck the metric. Population Status – Monitoring of Fish or Wildlife population-specific abundance, productivity, spatial distribution, or genetic diversity. Hydrosystem – RM&E occurring within and/or applicable to management questions or critical uncertainties associated with the mainstem Columbia River hydrosystem and associated habitat. Tributary Habitat – RM&E occurring within and/or applicable to management questions or critical uncertainties associated with the Columbia basin tributary habitat. Estuary/Ocean – RM&E occurring within and/or applicable to management questions or critical uncertainties associated with the Columbia River estuary habitat or the ocean. Harvest – RM&E associated with harvest management questions or critical uncertainties. Hatchery - RM&E associated with hatchery management questions or critical uncertainties. Predation – RM&E associated with predation management questions or critical uncertainties. Systemwide - RM&E associated with broad, ecosystem level management questions or critical uncertainties.		list	

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
164	Acquire Water Instream	Water Transactions	Covers final aspects to complete implementation of water transactions through the Columbia Basin Water Transactions Program process to maintain and/or increase the flow of water to provide needed habitat conditions. Work includes steps for payment of funds to water right holder and/or completion of agreement for securing protected water instream. The work element involves the purchase or transfer of water rights for instream purposes, and these water allocations are not withdrawn from the stream. This work element is generally linked with WE#154, Develop and Negotiate Water Right Transaction. This work element may be linked with WE#82, Install Well, WE#149, Install Pipeline, WE#150, Install Sprinkler, and WE#151, Line Diversion Ditch for purposes of legally transferring conserved water instream. Entities using these irrigation efficiency work elements and putting water instream should coordinate with the CBWTP to complete a CBWTP water transaction checklist to ensure conserved flow is put instream and this work element is used to collect metrics for the amount of flow secured instream. See www.cbwtp.org for more information regarding the Columbia Basin Water Transactions Program. This work element may often be used in a separate contract, such as a contract under the CBWTP, instead of the contract with irrigation efficiency work elements due to the time involved for the conserved water application to be processed through the state water agency. This work element may also be used to transfer water rights instream that were secured from an earlier land transaction if the water rights were not dedicated to instream purposes at the time of acquiring the land and putting the water rights instream is consistent with the fish and wildlife purposes.	1465	Start day and month for water instream	This is the beginning of the season in which flow will be returned. Pertains to acre-feet of acquisition. The term acquisition refers to either the lease or the purchase of water.	☐	list	
				1466	Start year of returned flow	This is the first year in which flow will be returned under the water transaction.	☐	LeaseYear	

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1467	End year of returned flow	This refers to the end of the agreement (when it expires). For permanent acquisitions, enter Permanent as the metric.	☐	LeaseYear	
				1463	End day and month for water instream	This is the end of the season in which flow will be returned. Pertains to acre-feet of water acquisition.	☐	list	
				1452	Amount of water secured in acre-feet/year	This is the total volume of water being addressed by the acquisition over the course of one irrigation season. The term acquisition refers to either the lease or the purchase of water.	☐	number	0.1
				1453	Flow of water returned to the stream as prescribed in the water acquisition in cubic-feet per second (cfs)	Provide the average volume rate of flow expected by the acquisition. The term "acquisition" refers to either the lease or the purchase of water.	☐	number	0.01
				1439	# of miles of total stream reach improvement	The # of miles refers to the distance (0.1 miles) from the point of diversion being addressed by the acquisition to the confluence. The term total includes both primary and secondary stream reaches. The term acquisition refers to either the lease or the purchase of water.	☐	number	0.01
				1438	# of miles of primary stream reach improvement	The # of miles refers to the distance (0.1 miles) from the point of diversion being addressed by the acquisition to the next downstream diversion or confluence, whichever comes first. The term acquisition refers to either the lease or the purchase of water.	☐	number	0.1
165	Produce Environmental Compliance Documentation	Environmental Compliance	Covers any work by the Contractor to investigate, gather, acquire, or prepare data and documents in support of obtaining environmental clearances for BPA. Work may include providing maps, drafting a biological assessment, obtaining permits, conducting public involvement activities, completing a cultural resource survey and report, inspecting water craft, vehicles, and heavy equipment for invasive species, implementing best management practices for lamprey, etc. Contractors are required to comply with all applicable federal, state, and local laws, including those that restrict the transport of invasive species. In all cases, environmental compliance work done by the Contractor must be separated from all other work. It is not permitted to combine environmental compliance activities with any other work element.	1479	Are herbicides used as part of work performed under this contract?	Please select yes if you are using BPA funding to apply herbicides as part of this contract. Herbicide use is often related to noxious weed control, restoration of native vegetation, or for rehabilitation purposes after construction.	☐	list	

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
176	Produce Hatchery Fish	Hatchery O&M	This work element includes the fish culture activities associated with a "typical" hatchery O&M contract: obtaining broodstock, spawning broodstock, incubating fertilized eggs, maintaining fish health, rearing juveniles, acclimating juveniles prior to release, releasing juveniles into a stream or lake, either onsite or from a separate acclimation facility and transportation of fish or eggs between various locations. O&M contractors should use this work element, "Produce Hatchery Fish," along with WE#61, Maintain Hatchery, in their SOWs. Use WE#60, Maintain Fish Health, if you are ONLY performing fish health activities under your contract.	1456	# eggs released from program	Number of eggs released to the natural environment from your hatchery or acclimation site during this contract period. Enter zero if eggs are taken to a hatchery for rearing under another BPA-funded contract. A number must be entered. Zero is a valid entry.	☐	number	1.0
				1458	# juveniles received into program	# of juveniles shipped to you from another facility	☐	number	1.0
				1459	# juveniles released from program	Number of juveniles released to the natural environment from your hatchery or acclimation site during this contract period. Enter zero if juveniles are taken to an acclimation site for release under another BPA-funded contract. A number must be entered. Zero is a valid entry.	☐	number	1.0
				1461	# adults into program (fish ponded)	# of adults collected elsewhere or from captive rearing for broodstock outside of this contract	☐	number	1.0
				1410	Purpose of production program [Supplementation, Harvest Augmentation, Research]	Drop-down box. Supplement natural populations to help recovery, increase Harvest opportunities, or Research.	☐	list	
				1412	# eggs received into program	# of eggs shipped to you from another facility	☐	number	1.0
				1493	# juveniles transferred to a non BPA-funded facility	# of juveniles transferred to another facility that is not funded by BPA, with the expectation that they will NOT be transferred back to a BPA-funded program.	☐	number	1.0
				1491	# eggs transferred to a non BPA-funded facility	# of eggs transferred to another facility that is not funded by BPA, with the expectation that they will NOT be transferred back to a BPA-funded program.	☐	number	1.0
				1492	# adult fish released to non-anadromous fishery	Excess broodstock or returning hatchery fish not utilized for natural spawning that are taken to a lake or other area with no outlet to anadromous streams.	☐	number	1.0
				1489	Secondary purpose of production program (if any) [Supplementation, Harvest Augmentation, Research]	If there is a secondary purpose for the production different from the primary purpose, select it here. Otherwise, uncheck the metric. Secondary purpose of production includes: Supplement natural populations to help recovery, increase Harvest opportunities, or Research.		list	

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1490	Brood Year	Brood year is defined as the calendar year in which the eggs were spawned. This metric is only applicable for eggs, juveniles or fish collected for brood. If releasing adults for non-anadromous fishery or collecting kelts, the metric should be unchecked. Select a brood year from the drop-down list regardless of when eggs or juveniles were released.		list	
				1506	# of kelts released to natural environment	# of kelts released to the natural environment with the expectation that they will spawn within the next few months	☐	number	1.0
				1513	# of female fish retained as broodstock	Females retained for broodstock. Includes fish expected to die before spawn date	☐	number	1.0
				1514	# of male fish retained as broodstock	Males retained for broodstock. Includes fish expected to die before spawn date	☐	number	1.0
				1511	# of adults transferred to a non BPA-funded facility	# of adults transferred to another facility that is not funded by BPA, with the expectation that they will NOT be transferred back to a BPA funded program	☐	number	1.0
				1512	# of adults released to the natural environment	# of adults released to the natural environment with the expectation that they will spawn within the next few months	☐	number	1.0
				1509	# of captively reared adults released to the natural environment	# of captively reared adults released to the natural environment with the expectation that they will spawn within the next few months	☐	number	1.0
				1510	# of captively reared adults transferred to a non BPA-funded facility	# of captively reared adults transferred to another facility that is not funded by BPA, with the expectation that they will NOT be transferred back to a BPA funded program	☐	number	1.0
				1507	# of kelts collected	# of kelts collected for reconditioning	☐	number	1.0
				1508	# of kelts transferred to a non BPA-funded facility	# of kelts transferred to another facility that is not funded by BPA, with the expectation that they will NOT be transferred back to a BPA funded program	☐	number	1.0
180	Enhance Floodplain/Remove, Modify, Breach Dike	Habitat Improvement	Refers to the removal, breaching, or alteration/set-back of a dike to restore riparian/floodplain or wetland habitat. This may also involve the installation of a tidegate or culvert. Also includes re-contouring of habitat to restore or enhance wetland or floodplain functionality and connectivity.	1564	# of barriers in the estuarine zone	The count of barriers addressed is the total number of fish passage barriers removed at a specified worksite. This is not the number of individual fish passage structure types but the structural blockages as a whole that may be quantified by one Latitude and Longitude and is used to calculate the distance upstream to the next barrier. A barrier in PISCES will be defined as passage barriers created from increased sediment from mine tailings that result in a passage impairment from subsurface flows.	☐	number	1.0

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WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1563	# of barriers in the freshwater zone	The count of barriers addressed is the total number of fish passage barriers removed at a specified worksite. This is not the number of individual fish passage structure types but the structural blockages as a whole that may be quantified by one Latitude and Longitude and is used to calculate the distance upstream to the next barrier. A barrier in PISCES will be defined as passage barriers created from increased sediment from mine tailings that result in a passage impairment from subsurface flows.		number	1.0
				1518	# of acres of riparian wetland habitat treated	Identify the total acres of habitat treated in riparian habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Riparian: Transition zone between aquatic and upland habitat typically within a river's floodplain. These habitats are related to and influenced by surface or subsurface waters, especially the margins of streams, lakes, ponds, wetlands, seeps, and ditches between land and a stream and above the average high watermark, or bank full height. Plant communities along the river and lake margins are called riparian vegetation, characterized by hydrophilic plants. This includes floodplain habitat, which may be restored to properly functioning conditions. (This excludes floodplain habitat influenced by the tides, which is classified as "Estuarine Habitat" for Pisces.) -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.		number	0.01

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WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1519	# of acres of freshwater non-wetland habitat treated	Identify the total acres of habitat treated in the freshwater non-tidal habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Freshwater non-tidal: Habitat with freshwater flowing in a channel or watercourse, including lakes, ponds, and adjacent areas below the high water mark that is not subject to the tidal influence of the estuarine zone. -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.	☐	number	0.01
				1520	# of acres of freshwater wetland habitat treated	Identify the total acres of habitat treated in the freshwater non-tidal habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Freshwater non-tidal: Habitat with freshwater flowing in a channel or watercourse, including lakes, ponds, and adjacent areas below the high water mark that is not subject to the tidal influence of the estuarine zone. -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1521	# of acres of estuarine wetland habitat treated	Identify the total acres of habitat treated in estuarine habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Estuarine: Habitat that is part of a semi-enclosed coastal body of water that is subject to the ebb and flow of tides, with one or more rivers or streams flowing into it, and with a free connection to the nearshore marine zone. This includes habitat impacted by the highest high and lowest low tides of a year. Estuaries are environments whose pH, salinity, and water levels are subject to the ebb and flow of tides, and the physical and chemical properties of the river that feeds the estuary and the ocean from which it derives its salinity. This habitat includes floodplain/riparian habitat subject to inundation from the tides. -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1522	# of acres of estuarine non-wetland habitat treated	Identify the total acres of habitat treated in the estuary habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Estuarine: Habitat that is part of a semi-enclosed coastal body of water that is subject to the ebb and flow of tides, with one or more rivers or streams flowing into it, and with a free connection to the nearshore marine zone. This includes habitat impacted by the highest high and lowest low tides of a year. Estuaries are environments whose pH, salinity, and water levels are subject to the ebb and flow of tides, and the physical and chemical properties of the river that feeds the estuary and the ocean from which it derives its salinity. This habitat includes floodplain/riparian habitat subject to inundation from the tides. -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.	☐	number	0.01
				1517	# of acres of riparian non-wetland habitat treated	Identify the total acres of habitat treated in the riparian non-wetland habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Riparian: Transition zone between aquatic and upland habitat typically within a river's floodplain. These habitats are related to and influenced by surface or subsurface waters, especially the margins of streams, lakes, ponds, wetlands, seeps, and ditches between land and a stream and above the average high watermark, or bank full height. Plant communities along the river and lake margins are called riparian vegetation, characterized by hydrophilic plants. This includes floodplain habitat, which may be restored to properly functioning conditions. (This excludes floodplain habitat influenced by the tides, which is classified as "Estuarine Habitat" for Pisces.) -Non-wetland: Habitat designated and regulated as non-wetland habitat, which is dominated by areas that are not inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of non-hydrophytic vegetation typically adapted for life in dry soil conditions.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1441	# of miles of habitat accessed to the next upstream barrier(s) or likely limit of habitable range	The length of stream made accessible to the next upstream barrier to fish passage in miles. To calculate miles, divide the total length of feet by 5,280 ft/per mile. Note: If this metric is captured for this barrier under another work element, put "0" here.	☐	number	0.01
				1565	# of miles of dike removed or modified in the freshwater area	The length of dike treated, or removed in miles. Report the full length of dike removed to match natural conditions. If the dike was breached report the cumulative length of openings created.	☐	number	0.01
				1566	# of miles of dike removed or modified in the estuary area	The length of dike treated, or removed in miles. Report the full length of dike removed to match natural conditions. If the dike was breached report the cumulative length of openings created.	☐	number	0.01
				1567	# of miles of dike removed or modified in the riparian area	The length of dike treated, or removed in miles. Report the full length of dike removed to match natural conditions. If the dike was breached report the cumulative length of openings created.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
181	Create, Restore, and/or Enhance Wetland	Habitat Improvement	Refers to the creation, restoration, or enhancement of a wetland area or function. This may be from the installation of a water control structure, re-contouring, and excavation to improve habitat connectivity. If the wetland was created from dike removal, breaching or modification, or the installation of a tidegate or culvert to improve fish passage, also use WE#180, Enhance Floodplain/Remove, Modify, Breach Dike, or WE#184, Install Fish Passage Structure. If additional actions or techniques are implemented, make sure you properly document associated work elements, e.g., WE#35, Develop Pond, or WE#36, Develop Terrestrial Habitat Features. Habitat creation (establishment) is defined as the manipulation of the physical, chemical, or biological characteristics present to develop a wetland on a site, where a wetland did not previously exist. Creation results in a gain in wetland acres. Habitat restoration (re-establishment) is defined as the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to former wetlands that may have been filled or subsided. Re-establishment results in rebuilding a former wetland and results in a gain in wetland acres. Restoration results in rebuilding a former wetland and results in a gain in wetland acres by re-gradation of the elevation to support wetland vegetation and function. Habitat enhancement is defined as the manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions of degraded wetland. Habitat enhancement is the manipulation of a site to heighten, intensify, or improve specific function(s), to change the growth stage or composition of the vegetation present, or is undertaken for a purpose such as water quality improvement, flood water retention, or wildlife habitat.	1521	# of acres of estuarine wetland habitat treated	Identify the total acres of habitat treated in estuarine habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Estuarine: Habitat that is part of a semi-enclosed coastal body of water that is subject to the ebb and flow of tides, with one or more rivers or streams flowing into it, and with a free connection to the nearshore marine zone. This includes habitat impacted by the highest high and lowest low tides of a year. Estuaries are environments whose pH, salinity, and water levels are subject to the ebb and flow of tides, and the physical and chemical properties of the river that feeds the estuary and the ocean from which it derives its salinity. This habitat includes floodplain/riparian habitat subject to inundation from the tides. -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	☐	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1520	# of acres of freshwater wetland habitat treated	Identify the total acres of habitat treated in the freshwater non-tidal habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Freshwater non-tidal: Habitat with freshwater flowing in a channel or watercourse, including lakes, ponds, and adjacent areas below the high water mark that is not subject to the tidal influence of the estuarine zone. -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	□	number	0.01

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1518	# of acres of riparian wetland habitat treated	Identify the total acres of habitat treated in riparian habitat zone. To calculate acres, use a GIS program or approximate the value by multiplying the total length of the treated habitat zone times the average width of the treated habitat zone in feet / divided by 43,560 sq. ft/acre. -Riparian: Transition zone between aquatic and upland habitat typically within a river's floodplain. These habitats are related to and influenced by surface or subsurface waters, especially the margins of streams, lakes, ponds, wetlands, seeps, and ditches between land and a stream and above the average high watermark, or bank full height. Plant communities along the river and lake margins are called riparian vegetation, characterized by hydrophilic plants. This includes floodplain habitat, which may be restored to properly functioning conditions. (This excludes floodplain habitat influenced by the tides, which is classified as "Estuarine Habitat" for Pisces.) -Wetland: Habitat designated and regulated as wetland habitat, which is dominated by areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. For more information consult the USFWS National Wetland Inventory at http://www.fws.gov/wetlands/ or EPA wetland information at http://www.epa.gov/wetlands/.	☐	number	0.01
183	Produce Journal Article	RM & E and Data Management	This work element should only be used when either the study is complete, or when a very significant stage of the data collection and analyses are done, and the subject matter is well defined. Separate work elements should be used for each document. The "general title/subject" should be named in the WE title. If you do not have a proposed title (or subject), you may not be far enough along in the data analysis to be using this work element. This work element applies only to manuscripts being submitted for possible peer-reviewed publication. Other technical analyses should be included as part of a project progress report WE#132, Produce (Annual) Progress Report.	1468	# of draft scientific reports submitted	TBD	☐	number	1.0
				1469	# of draft manuscripts and draft final reports of research findings submitted for publication	TBD	☐	number	1.0

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
184	Install Fish Passage Structure	Instream Passage Improvement	Install, replace, or modify structures when the intent is to improve fish passage and/or flow, typically by removing or modifying a full or partial instream barrier. "Structures" include: fish ladders, bridges, culverts, jump pools, and weirs. "Barriers" include such obstacles to fish passage as man-made dams (including push-up diversion dams), tidegates, weirs, culverts, rock fords and road crossings, as well as natural barriers such as logjams and natural streambeds. When using this work element, if work includes removing a fish passage barrier, include that work as a milestone under this WE instead of using WE#85, Remove/Breach Fish Passage Barrier. Where anadromous fish are present, structures installed must meet current NOAA specifications and USFWS specifications for bull trout and lamprey. Use WE#180, Enhance Floodplain/Remove, Modify, Breach Dike if the installation of a passage structure is associated with a dike removal, breaching, and modification, and may create additional acres of habitat as well as providing access to instream habitat. Use WE#70, Install Fish Monitoring Equipment, for weirs installed primarily to restrict fish passage for the purpose of monitoring or collecting fish (e.g., picket weirs). Design of complex or large-scale fish passage structures is often a separate work element (see WE#175, Produce Design and/or Specifications).	1470	If installing a ladder, does the ladder meet NOAA specifications for attraction flow, pool dimensions, jump height, etc?	Self-Explanatory		list	
				1471	Does the structure remove or replace a fish passage barrier?	Self-Explanatory	☐	list	
				1441	# of miles of habitat accessed to the next upstream barrier(s) or likely limit of habitable range	The length of stream made accessible to the next upstream barrier to fish passage in miles. To calculate miles, divide the total length of feet by 5,280 ft/per mile. Note: If this metric is captured for the removal of a barrier under another work element, put "0" here.	☐	number	0.01
				1407	Was barrier Full or Partial?	Self-Explanatory	☐	list	

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
				1563	# of barriers in the freshwater zone	The count of barriers addressed is the total number of fish passage barriers removed at a specified worksite. This is not the number of individual fish passage structure types but the structural blockages as a whole that may be quantified by one Latitude and Longitude and is used to calculate the distance upstream to the next barrier. A barrier in PISCES will be defined as passage barriers created from increased sediment from mine tailings that result in a passage impairment from subsurface flows.	☐	number	1.0
				1564	# of barriers in the estuarine zone	The count of barriers addressed is the total number of fish passage barriers removed at a specified worksite. This is not the number of individual fish passage structure types but the structural blockages as a whole that may be quantified by one Latitude and Longitude and is used to calculate the distance upstream to the next barrier. A barrier in PISCES will be defined as passage barriers created from increased sediment from mine tailings that result in a passage impairment from subsurface flows.	☐	number	1.0
186	Operate and Maintain Habitat/Passage/Structure	Habitat/ Passage O&M	Operation and maintenance of habitat features including, but not limited to, fences, instream structures, passage facilities, sediment control structures, and off-site water developments. Also includes the maintenance of residences, sheds, barns, and other buildings associated with habitat/passage projects. Use WE#188, Provide Access and Public Information for maintenance of access roads, parking areas, signs, and kiosks. Use WE#61, Maintain Hatchery, for operation and maintenance of facilities and structures associated with hatcheries. Use WE#197, Maintain/Remove Vegetation for vegetation maintenance.						
187	Put and Take Fisheries	Hatchery O&M	The stocking of a pond, lake or reservoir with hatchery reared fish for recreational fishing purposes. This includes the transport and stocking of the fish, and the operation and maintenance of the recreational facilities, e.g., bathrooms and access roads.	1500	# of fish stocked	# of fish you transport and release to your put and take fishery	☐	number	1.0
				1501	Total weight of fish stocked in kilograms	Weight, to the nearest 0.1 kilogram, of the fish you transport and release to your put and take fishery.	☐	number	0.1

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
190	Remove, Exclude and/or Relocate Animals	Habitat Improvement	Removal or relocation of fish and wildlife species and/or any actions employed to exclude non-native or undesirable fish and wildlife species from a particular area. For California sea lions, "removal" and "exclusion" only includes non-lethal hazing. For trapping California sea lions for the sole purpose of tagging, use WE#158, Mark/Tag Animals. Examples of "removal" of fish and wildlife species include the removal of bullfrog egg masses and adults or removal of northern pikeminnows. Examples of "exclusion" activities include the installation of a fish passage barrier to exclude non-native fish from high mountain lakes. Fencing activities designed to "exclude" livestock should use WE#40, Install Fence. An example of a "relocation" activity includes the relocation of beavers.						
192	Law Enforcement	Habitat/ Passage O&M	Provide enforcement activities on mainstems and tributaries, including two primary components: (1) reduce illegal take of Columbia Basin fish & wildlife, and (2) enforce habitat rules and regulations. Enforcement officers will enforce fisheries and habitat regulations, providing protection against illegal takes on resident fish, anadromous fish and Columbia River salmon species throughout their life cycle, i.e., "gravel to gravel," with an emphasis on weak stocks passing through the hydro-power corridor into tributary streams and critical habitats.	1496	# of patrol hours logged	Officer would count number of hours on patrol as opposed to total number of hours on duty.	☐	number	1.0
				1497	# of arrests made	Officer would count # of arrests regardless of type or outcome.	☐	number	1.0
				1498	# of seizures made	Officer would count the event as one seizure as opposed to the number of items seized and or confiscated. A seizuer is considered confiscated equipment, or illegal take such as pelts and fish.	☐	number	1.0
				1499	# of citations issued	Officer would count number of citations issued regardless of type or outcome.	☐	number	1.0

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
6	TBL Work	Land Acquisition / Conservation Easement	This is a BPA Internal-use only work element. BPA uses this work element for any work the Transmission Business Line (TBL) provides in support of a fish and wildlife project. May include appraisal review, appraisals, help in development of an MOA, real estate negotiations, survey/photogrammetry, and GIS work. Additionally, relocation costs associated with a land purchase are captured here.		*No metrics needed for this work element*				
26	Investigate Trespass	Habitat/ Passage O&M	Efforts involved with establishing whether trespass is occurring (human or livestock). For fence maintenance use WE#186, Operate and Maintain Habitat/Passage/Structure.		*No metrics needed for this work element*				
35	Develop Pond	Habitat Improvement	Develop a pond and its surrounding habitat for resident fish and/or waterfowl. May involve the installation of a water control structure or excavation. Does not apply to sediment control ponds (WE#55, Erosion and Sedimentation Control), acclimation ponds (WE#171, Build Artificial Production Facility), or wetlands (WE#181, Create, Restore, and/or Enhance Wetland).		*No metrics needed for this work element*				
60	Maintain Fish Health	Hatchery O&M	Includes the work performed under contracts solely for fish health maintenance, such as fish health monitoring, pathology sampling, laboratory processing of samples, and consultation with fish health professionals. If the full range of hatchery fish culture activities is performed under a contract, use WE#176, Produce Hatchery Fish instead.		*No metrics needed for this work element*				
61	Maintain Hatchery	Hatchery O&M	Includes all maintenance and repair activities associated with fish production facilities, including maintenance of buildings, grounds, raceways, acclimation ponds, net pens, water treatment facilities, equipment, vehicles, etc. Also includes construction that does not expand the rearing capacity of the facility (e.g., replacing a raceway). This work element is intended to include activities related to care of physical structures and grounds and not the care of fish. Work to produce fish would be under WE#176, Produce Hatchery Fish.		*No metrics needed for this work element*				

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
70	Install Fish Monitoring Equipment	RM & E and Data Management	Installation of a weir, trap, electronic portal, or other equipment or facility used to monitor fish passage or to collect juvenile or adult fish. This describes the installation of relatively permanent fixed facilities as well as more mobile equipment, like rotary screw traps for smolts. Use this WE when the effort/cost to install is substantial, otherwise installation (and removal) could simply be a milestone under the WE for which the equipment will be used, typically WE#157, Collect/Generate/Validate Field and Lab Data, or WE#158, Mark/Tag Animals.		*No metrics needed for this work element*				
80	Install Siphon	Instream Passage Improvement	Covers work that installs a siphon, flume, or other structure to separate canal flow from stream flow where the two have been intermingled as part of past water diversion development, resulting in fish using the natural stream course for passage and rearing. If additional fish barriers are needed, include these as a milestone. This WE is specific to modifying existing structures; the design of these structures is typically a separate work element and should use WE#175, Produce Design and/or Specifications.		*No metrics needed for this work element*				
87	Prepare HEP Report	Land Acquisition / Conservation Easement	Efforts leading to a report to present the findings of the Habitat Evaluation Procedure (HEP) survey conducted by the Regional HEP team.		*No metrics needed for this work element*				
98	Other	Other	In rare instances, a contractor may be performing a type of work that is fundamentally different than anything described by existing work elements. In such a case, the contractor should consult with his or her BPA project manager to determine if using the "Other" work element is appropriate.		*No metrics needed for this work element*				

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
100	Construction Management	Hatchery / Major Construction	Oversight of construction, including activities ranging from conducting daily construction observation, to providing professional on-site inspection services, to construction management support, including contractor daily-log review; RFI review and responses; submittal review and responses; and key site observations, such as reinforcement inspection, concrete pour observation, and facility start-up. Usually this WE is used only on larger construction activities ($250,000 or greater value) and/or where construction management is deemed to be important or complex enough to warrant splitting it out in a separate contract from the actual construction work.		*No metrics needed for this work element*				
114	Identify and Select Projects	Planning and Coordination	Covers work by the contractor to identify, prioritize, assess, and ultimately select projects. Often associated with Model Watersheds, or habitat restoration programs that coordinate multiple projects within a larger umbrella project. Coordination work that helps identify and select projects or sites should be covered under this work element.		*No metrics needed for this work element*				
115	Produce Inventory or Assessment	Planning and Coordination	Covers inventories and assessments specifically designed to support future implementation actions. Can include passage inventories, habitat condition inventories, or watershed assessments. Does not cover ongoing passage and habitat monitoring.		*No metrics needed for this work element*				
119	Manage and Administer Projects	Planning and Coordination	Covers the administrative and technical work by the contractor to fulfill BPA's programmatic and contractual requirements such as financial reporting (accruals), and development of an SOW package (includes SOW, budget, property inventory).		*No metrics needed for this work element*				
122	Provide Technical Review	Planning and Coordination	The review of technical details, including but not limited to engineering plans, restoration plans, project selection, RM&E methods, and deliverable approval.		*No metrics needed for this work element*				

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
141	Produce Other Report	Reporting	This work element covers any report required or produced for a contract, except those specifically covered under other work elements (e.g., WE#132, Produce (Annual) Progress Report, or WE#183, Produce Journal Article, or WE#185, Produce Pisces Status Report). If this work element is used for multiple reports in the same contract, then each report should be listed as a separate milestone.		*No metrics needed for this work element*				
154	Develop and Negotiate Water Right Transaction	Water Transactions	Covers initial aspects of completing water right transactions from preliminary evaluation of the viability of a specific transaction opportunity to preparing the water transaction. May include: negotiating, proposing, and review of water deals through the Columbia Basin Water Transactions Program (www.CBWTP.org) process. Entities seeking to do a water transaction or conserve water should contact the CBWTP to acquire or transfer water instream. Work element does not include general landowner coordination before any transaction opportunity is identified. Includes development of transactions to put more water instream such as split season leases, long-term leases, diversion reduction agreements, permanent water transfers, stored water agreements to increase stream flows, conserved water, and water exchanges.		*No metrics needed for this work element*				

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
156	Develop RM&E Methods and Designs	RM & E and Data Management	Work to identify and/or develop monitoring methods, designs, or associated tools. This includes statistical and sampling designs; protocols for field or remote sampling, data analysis, lab procedure, reporting standards, and quality assurance/quality control; development of data definitions and metadata; conceptual or simulation models; software development; tagging and other monitoring equipment; and generally any other work that prepares for the implementation of actual data collection/generation. Protocols, including temporal and spatial designs, data collection and analysis methods, and related metrics or indicators, will be “Published” in monitoringmethods.org. Does not apply to producing an RM&E plan itself (see WE#174, Produce Plan). Does not apply to models that are developed in the course of analyzing and interpreting existing data, such as multivariate models (see WE#162, Analyze/Interpret Data).		*No metrics needed for this work element*				

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
159	Transfer/Consolidate Regionally Standardized Data	RM & E and Data Management	This work is for transferring or reformatting data from one spreadsheet/database to another, typically primary data from a field or lab site to a higher-level, secondary regional or national database. This may also include derived data if such data are calculated by entities other than the secondary database. It includes both the act of sending and receiving, hardware/software needs for automated uploads/downloads (e.g., transmission and relay links for regular nightly uploads from remote telemonitoring sites), the development and application of data exchange protocols (including QA/QC), and any formatting and documentation required to make the transfer. It does not include initial data entry but it does include manipulating (e.g., reformatting and, if appropriate, georeferencing) data at the receiving end. This work element explicitly reinforces the importance of transferring data to databases where they will be maintained and accessible. Capturing data above the field or lab level includes acquisition in electronic formats, entering data into a computer from historical records, digitizing images, and other methods for converting information to digital format for later dissemination or analysis. This work element may include generating secondary/derived data when those data are stored in regional databases for access and use by other parties.		*No metrics needed for this work element*				

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
160	Create/Manage/Maintain Database	RM & E and Data Management	Any work that maintains or improves the security, quality, accessibility, or utility of data. Includes creation of relational databases; creation of computer applications to manage data, creation of standardized data formats, management of the data within the database, database hardware/software maintenance and improvement, QA/QC, building and maintaining connectivity with interrelated applications (e.g., GIS), integrating with distributed information management systems using industry standards for discovery (i.e., web portals) and creation of metadata/documentation and user-support materials for the consolidated data, etc. This applies both to larger regional, secondary databases and to local primary databases (can include spreadsheets) maintained on desktops for individual projects. Does not include generation of data queries or reports, except for internal data management and QA.		*No metrics needed for this work element*				
161	Disseminate Raw/Summary Data and Results	RM & E and Data Management	All work that makes data and information available to others, except for written products covered specifically by other work elements. Includes maps, data query systems, internet data distribution (including online data query systems and web services), development and use of online data display tools, library and archival services, integration with distributed information management systems using industry standards for data display and analysis, and oral and abstract presentations of results to professional audiences. For regional data management projects this can include dissemination of information about the purpose, functions and tools of the data management projects themselves. For outreach and education to students, the general public, and other non-professional audiences, see WE#99, Outreach and Education.		*No metrics needed for this work element*				

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
168	Council 3-step Process: Step 1	Hatchery / Major Construction	Step 1 - conceptual planning, represented under the Program primarily by master plan development and approval. Activities necessary to coordinate Step 1, the conceptual/preliminary phase of the NPCC's 3-step process, include submitting required documents, responding to Council/ISRP questions, developing and providing additional materials, attending meetings with Council/ISRP, and making appropriate revisions, etc. [Work Element expired 09/30/2011]		*No metrics needed for this work element*				
169	Council 3-step Process: Step 2	Hatchery / Major Construction	Step 2 - preliminary design and cost estimation, and environmental (NEPA and ESA) review. Activities necessary to coordinate Step 2, the progress review phase of the NPCC's 3-step process, include submitting required documents, responding to Council/ISRP questions, developing and providing additional materials, attending meetings with Council/ISRP, and making appropriate revisions, etc. [Work Element expired 09/30/2011]		*No metrics needed for this work element*				
170	Council 3-step Process: Step 3	Hatchery / Major Construction	Step 3 - final design review prior to construction and operation. Activities necessary to coordinate Step 3, the final design phase of the NPCC's 3-step process, include submitting required documents, responding to Council/ISRP questions, developing and providing additional materials, attending meetings with Council/ISRP, and making appropriate revisions, etc. [Work Element expired 09/30/2011]		*No metrics needed for this work element*				
171	Build Artificial Production Facility	Hatchery / Major Construction	Covers all work associated with the construction of a hatchery complex or any structural component of an artificial production facility or satellite facility (e.g., incubation rooms, rearing tanks/ponds, raceways, acclimation ponds, holding ponds, pumps, wells or other water supply, hatchery offices, staff housing, etc.). Also covers the expansion of any major component if it is intended to increase rearing capacity.		*No metrics needed for this work element*				

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
172	Conduct Pre-Acquisition Activities	Land Acquisition / Conservation Easement	This work element includes the majority of the steps that are required before fee title or a conservation easement can be acquired for a tract of land. The steps include: perform appraisal, perform title searches, perform land boundary surveys, provide legal descriptions, perform hazardous waste assessment, and identify minimum habitat units. For easements, this work element would also include the definition of the easement terms and conditions.		*No metrics needed for this work element*				
174	Produce Plan	Planning and Coordination	Covers a wide range of planning activities including but not limited to operation plans, management plans, maintenance plans, implementation plans, restoration plans, research, monitoring, and evaluation (RM&E) plans, Hatchery Genetic Management Plans (HGMPs), hatchery master plans, hatchery fish production plans, feasibility studies, and surveys (does not include land management plans; see WE#193, Produce Land Management Plan). Covers both strategic plans that will influence multiple projects and site-specific plans. Use WE#196, Council Step Process to cover labor and materials for the submission of documents required by the NPCC's 3 -step process. Where WE#174, Produce Plan is used in a contract SOW for production of a Hatchery Master Plan, the contractor should review the NPCC's requirements under their 2001 Step Document, Section V., Elements A & B (http://www.nwcouncil.org/LIBRARY /2001/2001-29.pdf) to be sure this content is covered in the plan.		*No metrics needed for this work element*				

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
175	Produce Design and/or Specifications	Planning and Coordination	Covers all work associated with the preparation of engineering or technical drawings, specifications and/or budgets required for the construction/installation of any structure or facility. May include ancillary work such as land surveying, photogrammetric surveys, field surveys, etc. For construction work not requiring a formal design (e.g., installation of a barbed-wire fence), this work may be included as a milestone under the corresponding work element.		*No metrics needed for this work element*				
182	PIT Tags	RM & E and Data Management	This is a BPA Internal-use only work element. BPA uses this work element to capture the cost of PIT tags purchased by BPA on behalf of the contractor(s). While this work element is not included in the contractor's statement of work, it is a project expense. Use WE#158, Mark/Tag Animals, for contractor expenses associated with ordering and/or implanting the tags in fish or wildlife.		*No metrics needed for this work element*				
185	Produce Pisces Status Report	Reporting	This work element covers the reporting of status of milestones and deliverables in each contract. These milestone status reports shall be completed either monthly or quarterly as negotiated between the contractor and COTR. For any other type of status report required or produced for a contract, use WE#141, Produce Other Report - except those specifically covered under other work elements (e.g., WE#132, Produce (Annual) Progress Report, or WE#183, Produce Journal Article).		*No metrics needed for this work element*				
188	Provide Access and Public Information	Habitat/ Passage O&M	Installation and/or maintenance of signs, kiosks, information boards, access roads, trails, road closures, and parking areas. You should use this WE for trespass signing rather than WE#26, Investigate Trespass. Also, WE#61, Maintain Hatchery, should be used for this kind of work pertaining to hatchery operations and WE#38, Improve Road, should be used for road work associated with habitat improvement by reducing erosion.		*No metrics needed for this work element*				

Metric Guidance by Work Element

WE ID	Work Element Name	Category	Work Element Definition	Metric ID	Metric	Metric Guidance	Metric Required	Metric Type	Metric Precision
189	Coordination-Columbia Basinwide	Planning and Coordination	Refers to coordination work that covers a large portion of the Columbia River Basin. Coordination which directly supports other project work should be covered in the details of the associated work element. Coordination work which helps identify or select projects and/or sites should be covered under WE#114, Identify and Select Projects. Coordination work related to a subbasin or other small region should be covered under WE#191, Watershed Coordination.		*No metrics needed for this work element*				
191	Watershed Coordination	Planning and Coordination	Refers to coordination work focused on a local watershed or subbasin. Coordination which directly supports other project work should be covered in the details of the associated work element. Coordination work which helps identify or select projects and/or sites should be covered under WE#114, Identify and Select Projects.		*No metrics needed for this work element*				

Metric Guidance by Work Element

This report summarizes 344 data records available for independent analysis in
structured text (.TXT) and in Excel 2003 (.XLS) format.